Superhash

We Help Game Studios
Design and Develop

BACKENDS, NETWORKING AND INFRASTRUCTURE FOR MULTIUSER ENVIRONMENTS

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ABOUT US

Ready to help shape the evolution of multiplayer gaming.

Established in 2022, Superhash stands as a beacon of innovation with roots that dig deep. Although our foundation may be recent, the collective experience of our team stretches back, with origins in **financial systems and backend solutions** since 1997 and **networked, multiplayer videogames** since 1999.

At Superhash, **infrastructure and systems design** are the pillars of our craft. Our specialized team excels in crafting resilient and scalable architectures using cloud-agnostic services. We guide clients through the vast **AWS, Azure** or **GCP** ecosystems and deploy solutions that are both efficient and optimized.

In parallel, we are immersed in the world of **blockchain**. From intricate network configurations to advanced **smart contract designs**, our expertise with web3 technologies is both broad and deep. This unique positioning allows us to bridge traditional cloud infrastructure with the avant-garde realm of blockchain.

Projects like **Crypto Unicorns by Laguna Games** highlight our proficiency in intertwining infrastructure with web3 integrations. Our collaboration with **Merigo** underscores our ability to push boundaries in server-powered game development. The enhancements we've brought to the Merigo Server Development Environment are testimonies to our commitment to contemporary solutions.

Security remains paramount in our endeavors. Our alliance with industry leaders like **Consensys** emphasizes our dedication to ensuring the utmost security in our projects. This meticulous approach, bolstered by our proprietary toolset ensures that we offer solutions that stand **robust against threats** and are **reliably stable**.

Our team, distributed across Europe, thrives on detailed, written communication. With a clientele that spans the globe, notably from the **US**, we've cultivated a culture that cherishes **proactivity and self-management**. This ethos is further deepened by our past experiences in indie game development and entrepreneurship.

In our constant exploration of technology's frontier, we've been drawn to the transformative potential of **Large Language Models** (LLMs). Recognizing their ability to power **generative AI solutions in videogames**, we have invested time and resources to extend our experience in **procedural content generation** with this amazing tech.

AT A GLANCE...

OUR MISSION

We prioritize safeguarding knowledge and staying updated with the ever-changing technology landscape.

OUR VISION

Superhash aims to be a key global player in providing world class infrastructure design and engineering services for the gaming sector.

OUR EXPERIENCE

Besides videogame backend development our team boasts expertise in DeFi, DLT application in videogames, financial industry architecture and cloud infrastructure design. We managed 100+ strong dev teams, done youth training, open-source blockchain projects, fintech projects and pioneered education initiatives.

TECH-STACK &
SKILLSET

We've had a chance to work with over 30 languages, many game engines, we were technical reviewers for professional publications, worked with some exotic cloud providers, we were hired to work on a number of game engines and we've done our fair share of render pipeline work and networking optimization - and we're especially great at procedural content generation. Let us know what you need.

Infrastructure engineering

VMware, Docker, Kubernetes, containerd, Terraform, Ansible, Packer, Puppet, Chef, AWS EC2, Lambda, S3, RDS, VPC, Route 53, ELB, IAM, SQS, HAProxy, Nginx, iptables, VPNs, DNS management, CDNs, IP subnetting, Prometheus, Grafana, ELK Stack (Elasticsearch, Logstash, Kibana), Datadog, Nagios, CloudWatch, Splunk, Jenkins, CI/CD pipelines, MySQL, PostgreSQL, MongoDB, Cassandra, DynamoDB, Redis, Memcached, database replication, sharding, backups, Infrastructure hardening, Snort, WAFs, SSL/TLS management, NAS, Object Storage, Block Storage, AWS Backup, disaster recovery, high availability, docker, Kubernetes, Helm, OpenStack, Varnish, horizontal and vertical scaling, distributed systems, RabbitMQ, Apache Kafka, Nginx, routine automation, deployment hooks, etc.

Videogame backend engineering

Unity Multiplayer, Unreal Networking, some AWS GameLift, some PlayFab, Merigo, C++, C#, Node.js, Express.js, WebSockets, TCP/UDP, OAuth, JWT, WebRTC, Socket.io, XMPP, JavaScript, TypeScript, Lua, Python, Java, Go (Golang), Rust, SQL, and NoSQL, Git, GitHub, GitLab, Bitbucket, SVN, Perforce, Mercurial, Bash scripting, Python, Ruby, etc.

web3

Blockchain network configuration and architecture, Solidity events, factory contracts, Truffle, Smart contract design patterns, Inheritance and interfaces in smart contracts, Off-chain oracles, Chainlink, OpenZeppelin, ERC-20, ERC-721 and ERC-1155, Access Control design patterns, Multi-sigs, Gas optimization, Systems design, Attacks and pitfalls, integer underflows, overflows, reentrancy attacks, DoS web3.js, Infura, Building tests for smart contracts, Hardhat, Scaffold-Eth, Brownie, Compound.js, Stablecoins, NFTs, Wrapped tokens, AMMs, Govnernance tokens, ZK Proofs, Crosschains, etc.

Favorite
Projects

Merigo Engine Development

With our help, Merigo supercharges server-powered game development thanks to customizable tools and game systems.

Infrastructure Engineering

Digital property rights are the next frontier of gaming, says Forte. We help them make it happen through our infrastructure magic.

Crypto Unicorns by Laguna Games

Crypto Unicorns is a leading NFT collection game on the Polygon network. We helped the Laguna team get it ready for launch.

Dragon Mania by Gameloft

Our professionals were a part of the Gameloft team where the task was to scale and improve the backend service.

Our
ENGAGAMENT
Model

At Superhash, we pride ourselves on our flexible approach to client collaboration. Our primary engagement model operates on a **Time & Material (T&M)** basis, where clients are billed based on either an hourly or daily rate, ensuring both transparency and adaptability.

For projects that demand specialized focus, we offer **dedicated consultancy, management, or even full team involvement**, ensuring that each project gets the nuanced attention it merits. We operate as a **self-managed team**, emphasizing our independence and ability to deliver without the need for micromanagement across timezones. This model ensures efficiency and optimal productivity regardless of geographic location.

Recognizing the varied needs of different projects, depending on the management scheme we're also open to **milestone-based** payments, facilitating phased deliverables and payment schedules.
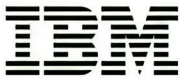
Lastly, for clients eyeing an end-to-end solution, our **Build-Operate-Transfer** service stands as a testament to our commitment, allowing us to initiate and oversee a project before transferring its operations seamlessly back to the client.

We're open to suggestions and are happy to discuss custom engagement models.

Key
COLLABORATIONS

that Superhash and its teams, members had the pleasure of being a part of.

In the future we aim to **focus on the games industry**. We believe that our skills with **procedural content generation** and **generative AI model training** will present a unique opportunity and are looking to extend our portfolio with AI driven services.

Disney	ERICSSON	ERSTE Bank
	GAMELOFT	IBM
LAGUNA GAMES	leopoly	meri go
Ness	SIEMENS	XREAL GAMES

Thank you for taking the time to review this document. Talk soon?

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