

## Aleph.im Decentralized Virtual Machines With Indexing Feature

Aleph.im is a production-ready decentralized storage and computing network. Our company has built solutions for major players like **Ubisoft**, **Polygon**, **Synaps** and **Request** and we are on a mission to help any protocol and DApp decentralize up to the last mile, enabling a smooth transition into Web 3.

Beyond Aleph.im's strong infrastructure layer, we have developed modular components on top of our system that give us a competitive edge in becoming the leading provider of **truly decentralized and user-friendly indexing solutions for blockchains**.



### Facing issues

#### Pains

- ⌚ No indexing
- ⌚ Slow to access blockchain data
- ⌚ Requests clogging the network
- ⌚ Single point of failure

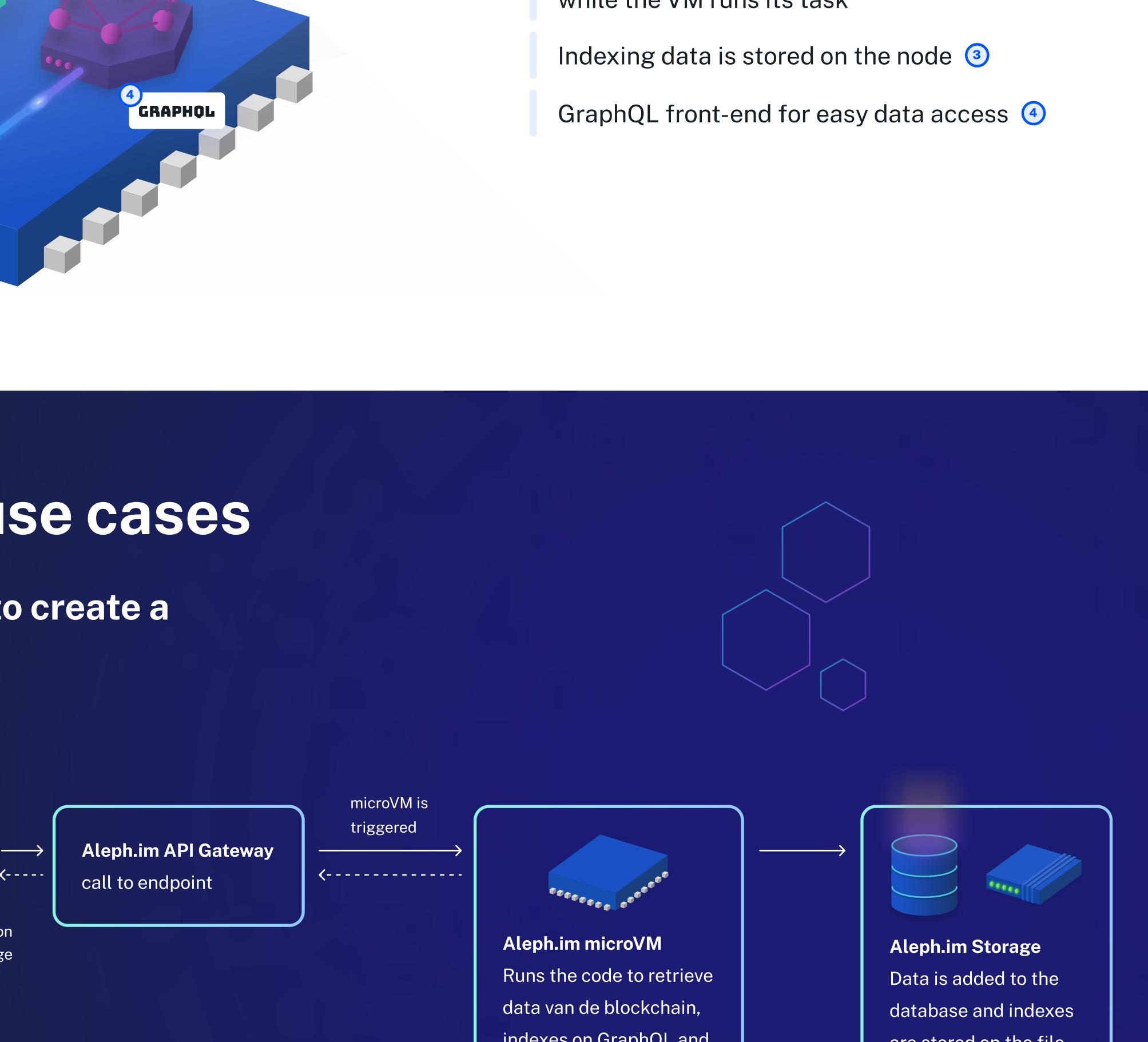
#### Solution

- 🕒 Indexing enabled VMs
- 🕒 FaaS with instant microVMs
- 🕒 Load balanced and auto scaling
- 🕒 VMs hosted on multiple Resource Nodes



### Resource Nodes Network

MicroVMs can work individually, together within a cluster or with other clusters



Decentralized Function as a Service (FaaS)

Retrieve data from:

- Our decentralized databases
- On-chain data
- IPFS
- External sources

dApps trigger VMs through our cloud or decentralized loadbalancers

Index on-chain data

#### MicroVM Indexing

1. DAPP triggers the VM to launch

2. VM runs its task

3. VM indexes data on the node

4. VM returns data back to the DAPP

#### Indexing solution

VM is triggered to launch ①

Chain indexing runs in the background while the VM runs its task ②

Indexing data is stored on the node ③

GraphQL front-end for easy data access ④

### Raydium.io use cases

#### Using indexing data to create a Raydium dashboard



#### GraphQL output example



### Our Partners

