HPB IN A NUTSHELL

HPB is a revolutionary permissionless blockchain architecture aiming to solve todays Blockchain shortcomings through a unique combination of dedicated hardware and software:

- Hardware: The Blockchain Offload Engine (BOE) is a dedicated chipset built for high transaction speeds, low latency, increased security and decentralization. The BOE can also be used in a DApp's processes, such as utilizing the hardware random number generator for item drop rates in games

- Software: High-performance architecture using the unique multivariable Proof of Performance consensus algorithm (PoP)

THE BLOCKCHAIN OFFLOAD ENGINE (BOE)

Revolutionary performance and high concurrent computing acceleration through:

- Streamlined processes by harmonization of hardware, firmware and software

- Combined serial capabilities of the CPU and the parallel processing capabilities of Field-Programmable Gate Arrays (FPGA)/ASIC chips
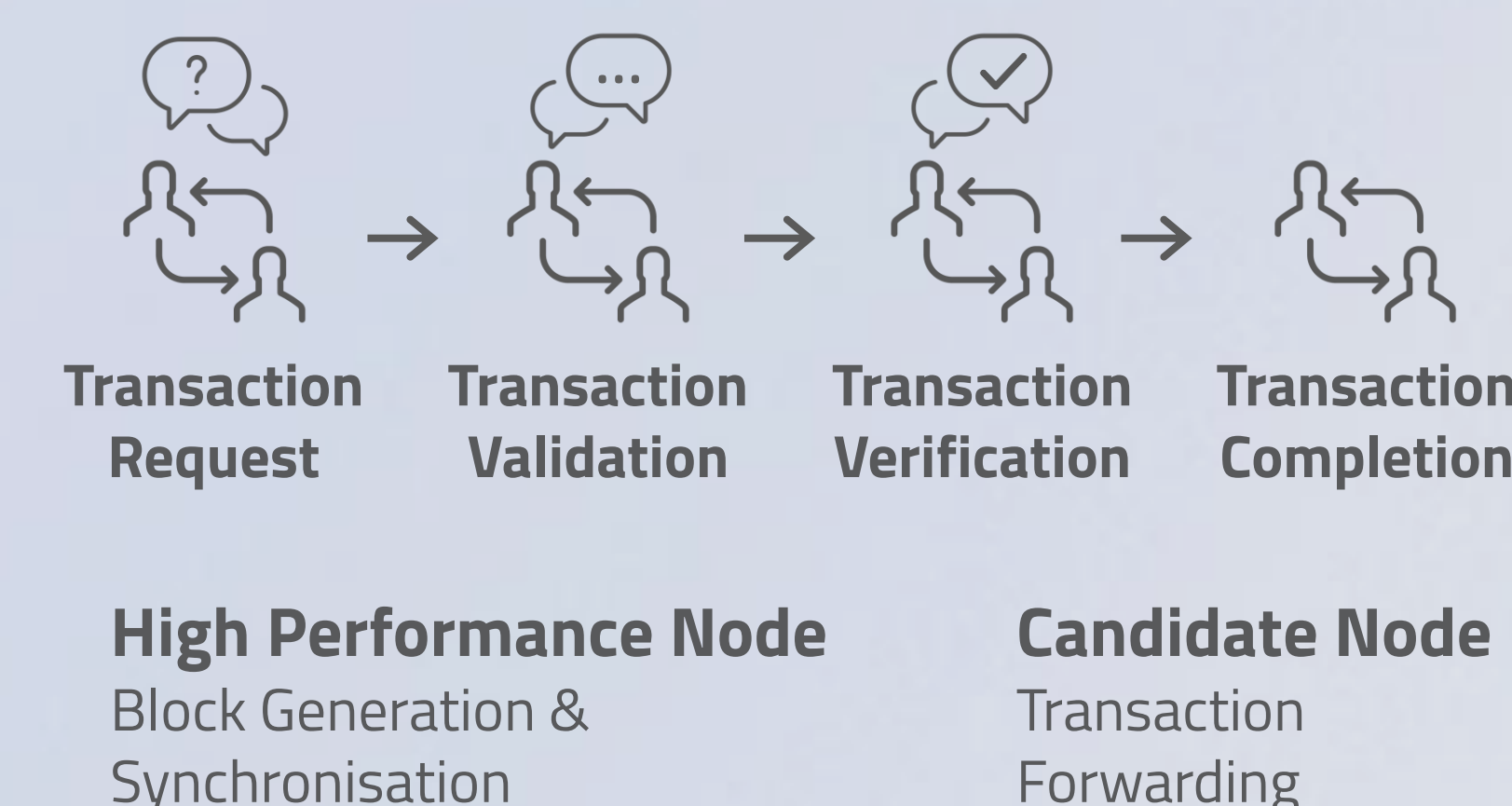
GOVERNANCE

- **Truly decentralized and stable** using a high number of globally distributed and constantly changing nodes, each utilizing the BOE

- **Highly effective** via the Proof of Performance consensus algorithm (PoP) which is based on the performance contribution of each node

SUPERIOR SECURITY

- **Blockchain native security** features

- **Enterprise level** digital signature verification and signature verification speed

- **Secure data transmission** using hardware random number generation encryption between nodes

BOE APPLICATION

Blockchain transactional workflow accelerated by HPB's unique solution

Transaction Request → Transaction Validation → Transaction Verification → Transaction Completion

High Performance Node
Block Generation & Synchronisation

Candidate Node
Transaction Forwarding

SUPERIOR PERFORMANCE

- **Fastest Blockchain convergence** through block data fragmentation broadcast processing for newly created blocks

- **Superior network performance** utilizing High-Performance nodes

- **Reduced response times and accelerated network speeds by factor 100,** parallelizing functions such as transaction data or confirmation broadcasting

ECO-FRIENDLY

- **Very low electricity consumption** due to the utilization of the unique synergies achieved by the combination of hardware and software