

INTEL® TECHNOLOGY

SECURING ENTERPRISE BLOCKCHAINS



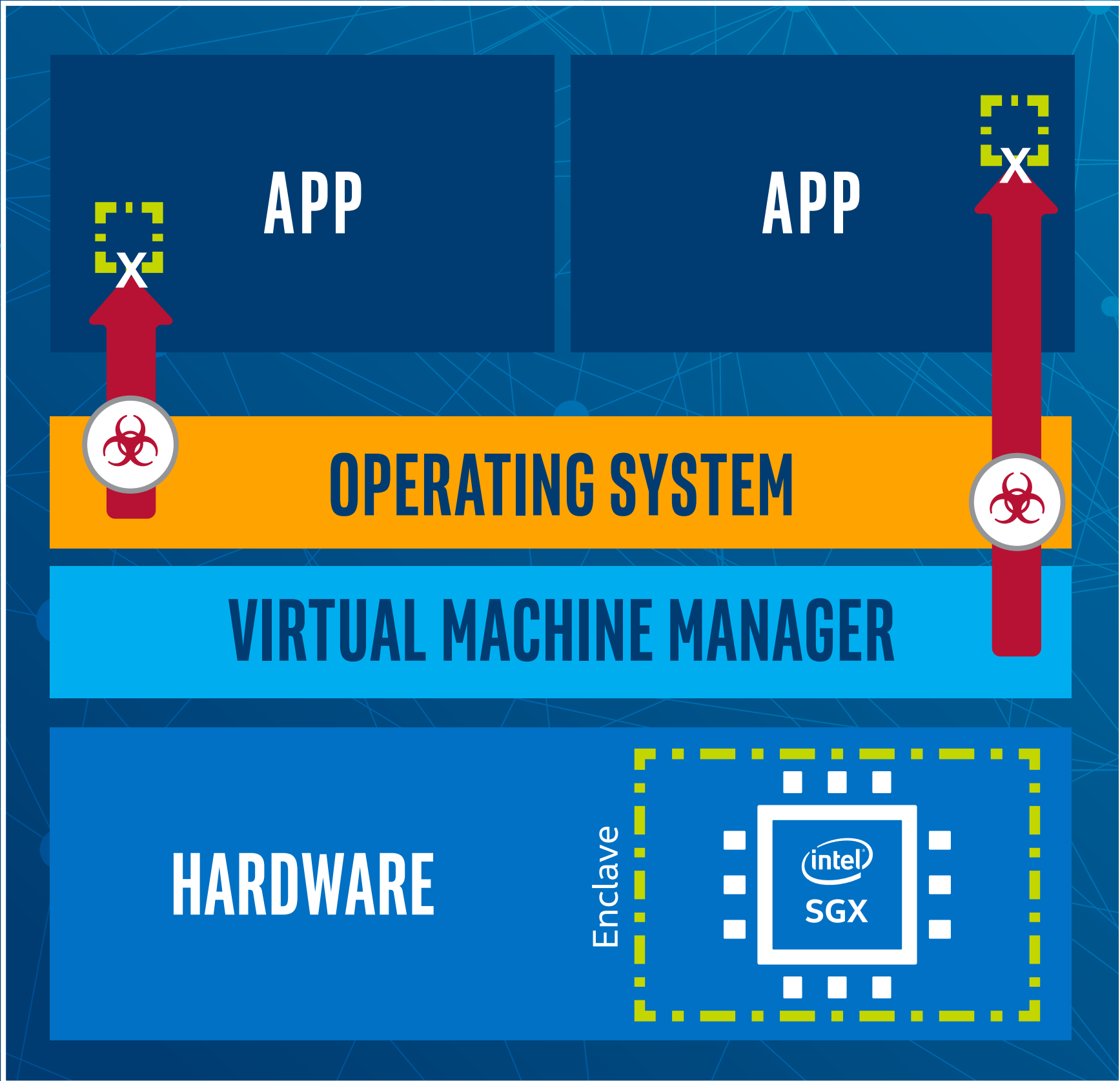
WHAT IS INTEL® SGX?

Intel® Software Guard Extensions (Intel® SGX)

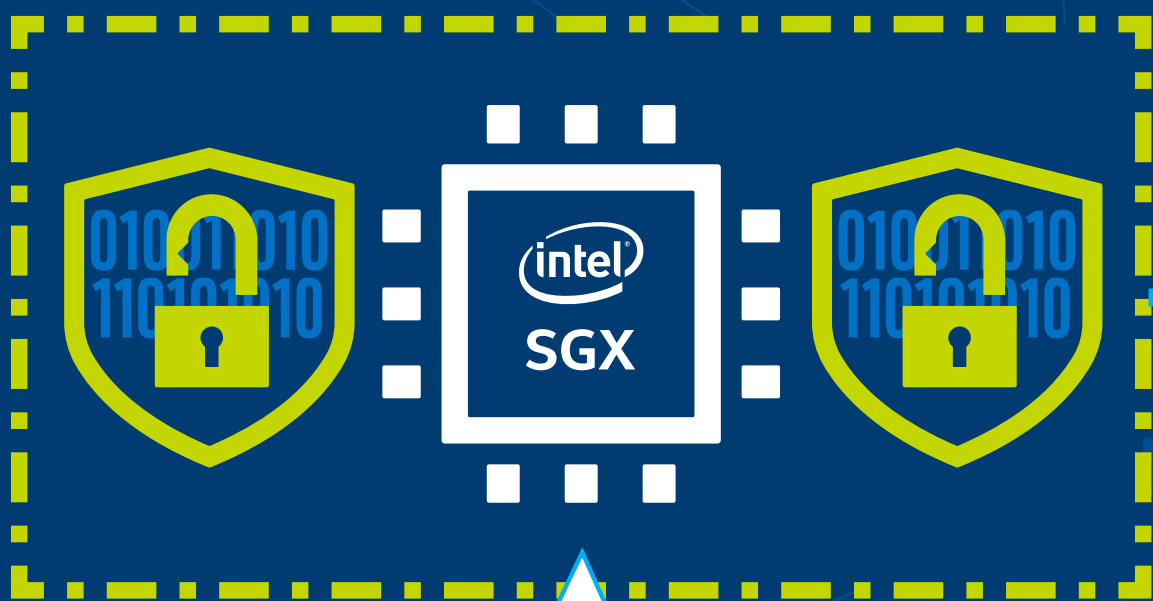
What is Intel SGX?

An Intel architecture extension designed to increase the security of select application code and data, protecting it from disclosure or modification.

Intel processor technologies provide unique capabilities that can improve the privacy, security, and scalability of distributed ledger networks.



BLOCKCHAIN PRIVACY AND SECURITY



With Intel SGX, blockchain data can be kept in encrypted form until it is needed for a transaction. It is then decrypted in a secure enclave where only permitted participants can view it.

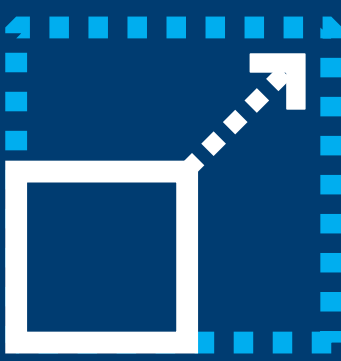
6,300%

Projected growth of the global blockchain technology market 2015 - 2024

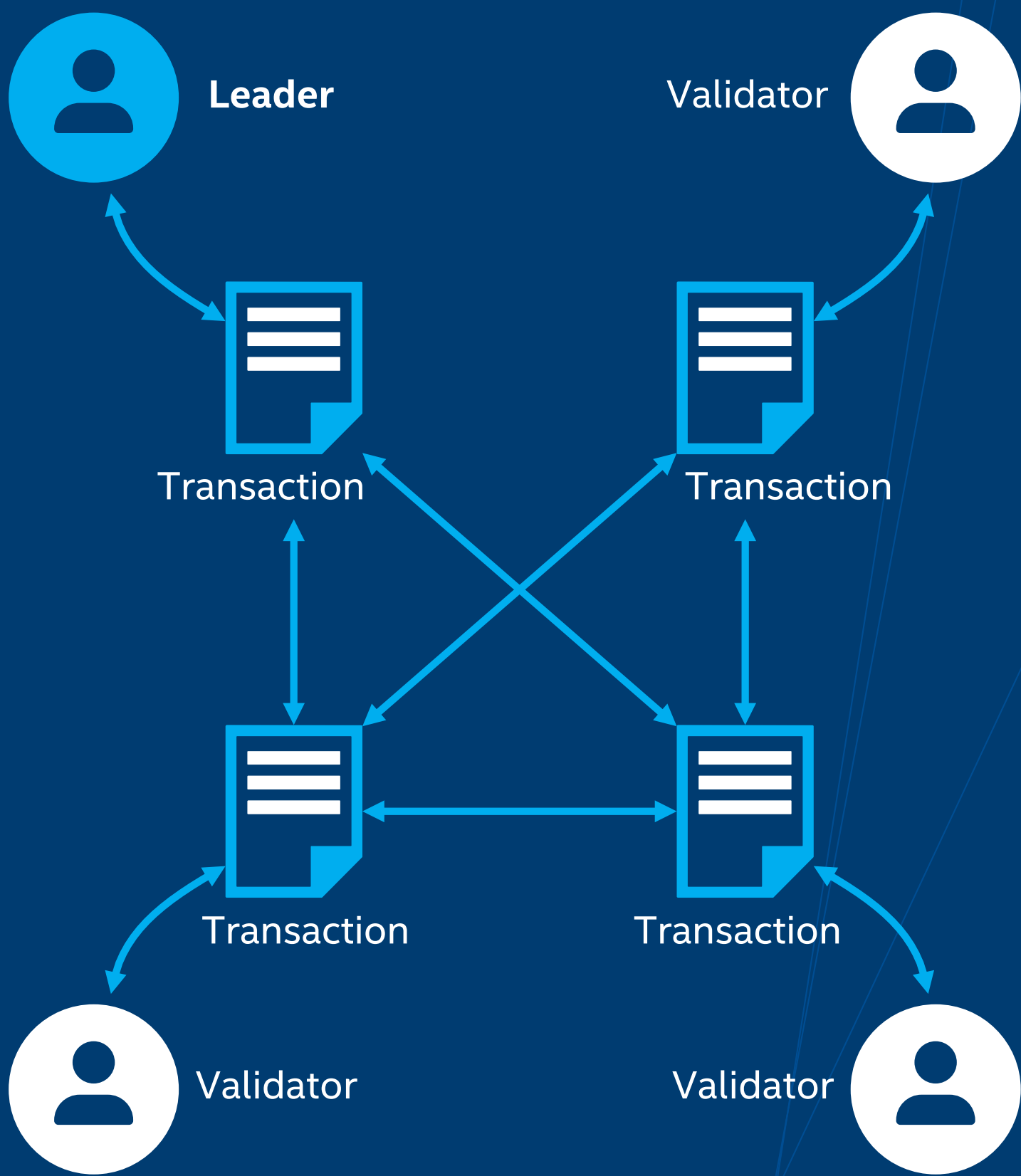
— Transparency Market Research



BLOCKCHAIN SCALABILITY

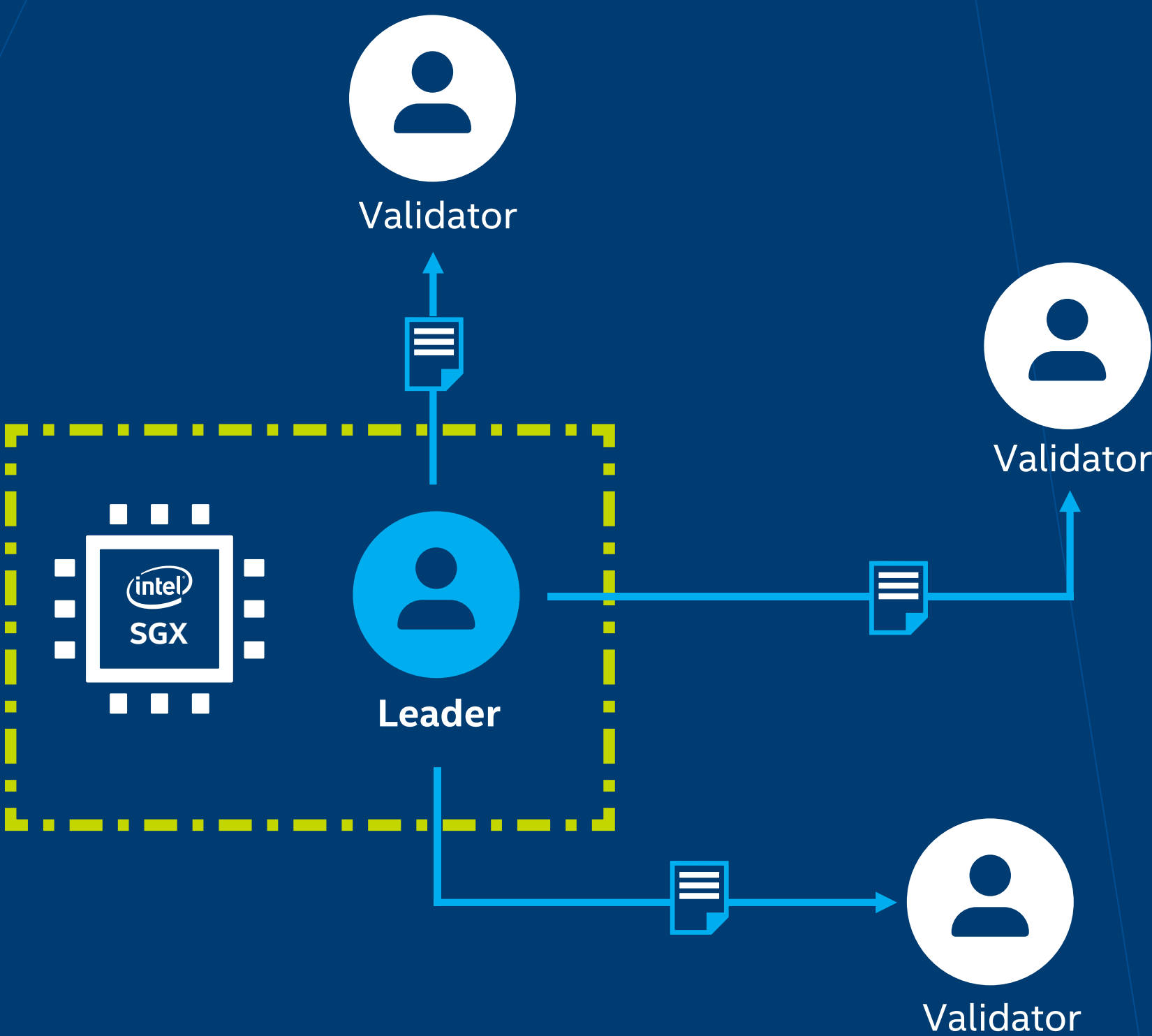


TYPICAL CONSENSUS



Traditional blockchain implementations have a leader node create and verify new block transactions, then request other validator nodes re-verify the block before posting it to the blockchain.

SCALABILITY



With Intel SGX, the re-verification step can be avoided. Instead, the leader creates and verifies the new block, then posts the block to the blockchain certifying that the proper transaction verification is complete.

¹Blockchain Technology Market—Global Industry Analysis, Size, Share, Growth, Trends, and Forecast, 2016–2024, Transparency Market Research, January 18, 2017 (Reference: <http://www.transparencymarketresearch.com/blockchain-technology-market.html>)

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