

4.7X performance increase with Intel® IPP-Cryptography Library when the length of the integer precision is 2048 bits.¹

"The modular exponentiation operation of partial Homomorphic Encryption in our FATE framework has been enhanced significantly through the introduction of the multi-buffer function provided by Intel® IPP-Cryptography library, helping improve the overall efficiency of user scenarios as well as reducing TCO."

Qian Xu, Vice General Manager of AI Department, WeBank

Accelerating Secure Computing for Federated Learning

WeBank is a private commercial bank with an online focus. WeBank has been focusing on exploring and promoting federated learning using the FATE (Federated AI Technology Enabler) open-source platform to help users quickly build federated learning solutions. WeBank partnered with Intel to accelerate the modular exponentiation operation of Partial Homomorphic Encryption (PHE) by using 3rd Gen Intel® Xeon® Scalable Processors and the multi-buffer functions provided by Intel® Integrated Performance Primitives Cryptography library. The overall operating efficiency of federated learning solution based on the FATE framework was improved significantly. This will help users improve the efficiency of federated learning solutions, while effectively reducing the Total Cost of Ownership (TCO).

Products and Solutions

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