SocketPro is a world-leading package of secured communication software components written with continuous inline request and response batching, real-time stream processing, asynchronous data transferring and parallel computation in mind. SocketPro contains a number of inner algorithms and integrates four common communication patterns, client-server, subscribe-publish, persistent message queue and network switch/router, into one stop solution package. Our extensive studies show that SocketPro delivers much better network throughput, concurrency and parallelism than other communication frameworks in gene on both local and wide area network environments.

SocketPro contains two core system libraries written from scratch by use of C/C++ native code for best performance and lowest software dependency at bottom level. In addition, SocketPro package contains adapters at middle level for each of supported development languages such C/C++, .NET, Java, Python, PHP, Node.js and JavaScript. The new adapters could be added into the package in the future. Your code is running on the top of these adapters instead of directly accessing core libraries. SocketPro adapters ensure that all your different languages codes seamlessly communicate each other. In addition to cross-language support, SocketPro currently runs on windows and various Linux variants. In the future, SocketPro will be ported onto Android and IPhone mobile devices as well as Apple and other Unix variants.

SocketPro is next generation of communication technology that internally streams both requests and responses for the best network efficiency and significant reduction of its expensive data round-trips. Our performance studies show that SockPro could have up to hundreds times performance improvement over HTTP/SOAP, .NET WCF (windows communication foundation), Java RMI, Java EJB, Java JAX-WS and Microsoft old DCOM technologies.

SocketPro components are thread-safe and uses non-blocking socket exclusively under all situations. All of SocketPro fundamental features are well coupled with modern asynchronous programming technologies such as anonymous delegate, Lambda expression, closure, future, yield, promise, async and await. SocketPro solves many common intimidating problems, which leads to far fewer common development daunting tasks. Although SocketPro favors asynchronous data transferring by streaming requests and responses in general, software developers can effortlessly convert all asynchronous methods into synchronous calls from your code if necessary. Inner engineered algorithms and multiple communication patterns are designed to reduce software integration costs among different development groups, which leads to fast development of high performance and scalable of distributed applications.

SocketPro comes with a number of plug-ins or modules that can be directly plugged into either your server or well known application servers such as MySQL, MS SQL, Oracle and others. All plug-ins enable not only request and response streaming processing but also table add, delete and update event notifications through SocketPro subscribe-publish communication feature for best performance and scalability.

SocketPro comes with two built-in parallel communication features for the best scalability through load balancing processing in parallel. One is running at client side which is named as SocketPro client socket pool. The other is running at server side which is called as SocketPro server router. Both of them partially support session-sticky load balancing.

SocketPro persistent message queue runs superior fast. In addition to common basic message writing and reading features, it supports manual transaction and real-time message availability notification to candidate consumers. Further, multiple message providers are not only able to write messages concurrently to one message queue file, but multiple consumers are also able to read messages from the message queue file simultaneously at the same time. At last, a SocketPro message queue is able to be replicated into multiple copies. Its data replication follows atomicity, consistency, isolation and durability rules.

SocketPro package contains components for fast building high performance and scalable enterprise distributed applications based on multiple middle tiers and master/slave database architecture. Both front and middle tiers have real-time update cache available for helping performance and avoiding data transferring from backend database. These components could serve as a startup or foundation to save lots of development time and effort.

At end, SocketPro is especially great and only market available backbone tool for hybrid cloud computation, B2B and B2C as well as other scenarios involved with high latency communication on wide area network.