EsperTech’s Complex Event Processing and Event Series Analysis software turns large volume of disparate event series or streams into actionable intelligence.

Complex Event Processing can provide the simplicity, scalability and level of abstraction required to turn disparate event series or streams into a sustainable competitive advantage.

**Esper, NEsper - Event Processing for Java & .Net**

Event Stream and Complex Event Processing - Design continuous queries and complex causality relationships between disparate event streams with an expressive Event Processing Language (EPL). EPL statements are registered into (N)Esper and continuously executed as live data streams are pushed through.

Rapid development and deployments – EPL has a “SQL look alike” and statement matches trigger plain Java or .Net/C# objects for real-time customized actionable intelligence. (N)Esper is pure Java/.Net and can run standalone or embedded into existing middleware systems (application servers, services bus, in-house systems). This ensures optimal end to end latency and flexible architecture.

**Esper Enterprise Edition** bundles the core Esper CEP engine with enterprise abilities that cover development, test, production deployment and monitoring lifecycles.

- Web-based user interface
- EPL editor with syntax highlight
- EPL debugger
- Detailed memory use reporting for all state maintained by the engine
- REST web services for use with external applications that embed
- Inward-facing JDBC; JMX support
- Real-time data displays (Eventlets) that are configurable, interactive, extensible and easy to compose into a dashboard and present historical and event data from multiple sources.

**Features at a glance**

**Efficient Event Processing**
- Continuous queries, filtering, aggregations, joins, sub-queries
- Comprehensive pattern detection
- Pull and Push
- High performance, low latency

**Extensible Middleware**
- Java, .Net, Array, Map or XML events
- Runtime statement management
- API or configuration driven
- Plug-in SDK for functions, aggregations, views and pattern detection extensions
- Adapters: CSV, JMS in/out, API, DB, Socket, HTTP
- Runtime management, operational visibility, interoperability
- REST Services and data push
- Provides a JDBC client and server endpoints for third party tools interoperability

**Rich Web-Based User Interface**
- Real-time event displays: Eventlet technology allows customizable and interactive continuous displays
- CEP engine management
- Design and debug EPL Statements
- Drill-down and browser script integration
- Hot deployment

**HA enabled (EsperHA)**
- Per statement configuration
- Transient combinable with fully resilient behaviour
- Hot standby API, hot backup
- Highly optimized and fast data storage technology
- Engine state RDBMS storage option

**EsperHA - High-Availability for Event Processing**

Resiliency – EsperHA provides resilience and thus turns any Esper application into a zero-downtime event processor with just declarative configuration and limited operational requirements suitable for both standalone and embedded deployments. EsperHA is a solution for short-lived and derived state. EsperHA offers incremental and full-backup operation optimized for extreme high write performance and fast recovery.