

TripAiku™

Product Description

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## **Hendrixx ITC, Ltd.**

Address: Hendrixx ITC  
Sporlaan 21K  
Tilburg, Noord-Brabant  
The Netherlands

Website: <https://www.hendrixx-itc.nl>

Email: [support@hendrixx-itc.nl](mailto:support@hendrixx-itc.nl)

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## 1. Product Positioning

TripAiku is an open-source alarm management and workflow management solution with advanced event-correlation functionality.

## 2. Product Characteristics

### 2.1 Rule-based

The rule-based ticket generation allows for advanced alarming on issues in your systems using multiple sources as input.

### 2.2 Dynamic Prioritization

A 'weight'-based mechanism is used to prioritize workflow tickets automatically based on e.g. the duration that a ticket has been open or the accumulated number of notifications related to the ticket.

### 2.3 Scalability

The platform is designed to maintain the online characteristics even for the largest of datasets.

### 2.4 Vendor Independence

The system is not tied to a specific vendor for data sources or workflow management front-end.

### 2.5 Openness

The customer is always in control of its data by being able to access it in any way and with any tool that is required.

### 2.6 Security

The openness does not mean that there is any concession with regards to security. The back-end database supports very fine-grained access control to data. User accounts can be configured to only be able to access parts of the data set that are required for their specific activities.

### 2.7 Event Enrichment

Extra data sources can be used to enrich the events with contextual information for the rule evaluation or to inform the operator handling the resulting ticket.

## 2.8 Auto-Close

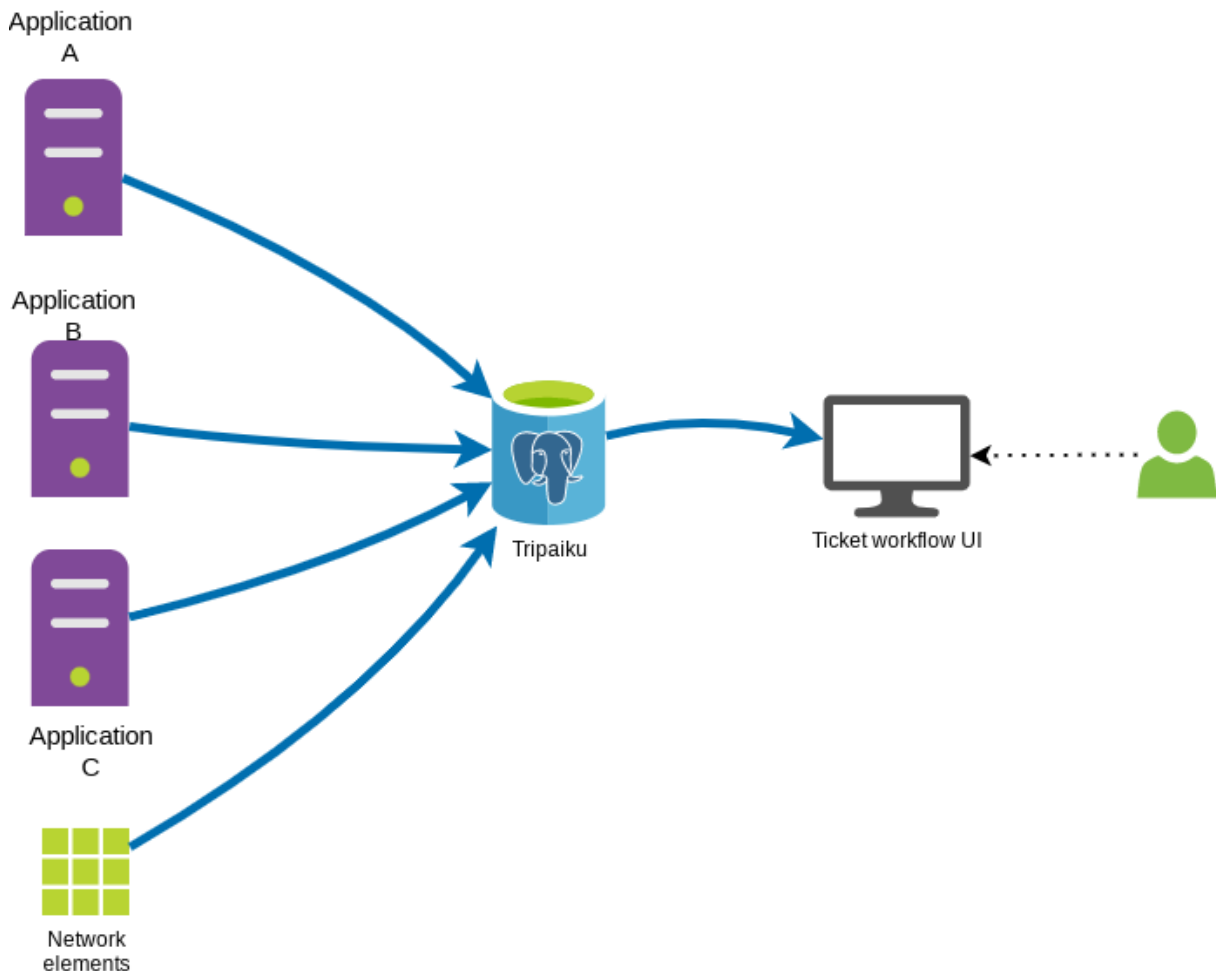
To prevent alarm fatigue and the overall workload of the operator, an advanced auto-close mechanism is available that can close tickets that are no longer relevant automatically.

## 3. Architecture

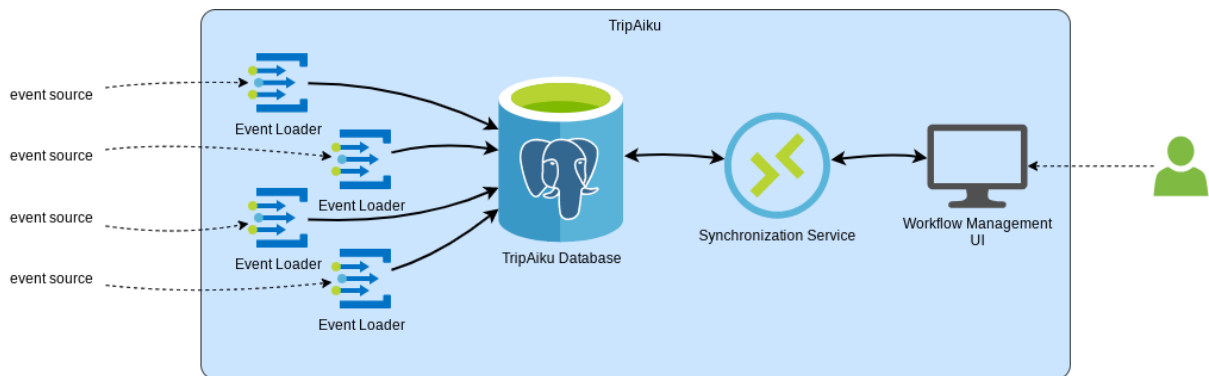
TripAiku consists of a core database, with pluggable modules for data sources and ticket-workflow front-end.

### 3.1 Position

The position of Tripaiku is within mission-critical heterogeneous environments of multiple components/networks that require careful monitoring and alerting.



## Software Architecture



### 3.2 Components

1. TripAiku Database - The core database that stores all events/notifications/tickets and evaluates the rules.
2. Event Loader - Loads events/notifications from external sources.
3. Synchronization Service - Synchronizes tickets and their state between the TripAiku database and the Workflow Management UI.
4. Workflow Management UI - A user interface to interact with tickets (pick-up, update, close, etc.).

### 3.3 Virtualization

All components of TripAiku are designed to be able to run in a virtualized environment. Advantages of a TripAiku deployment on a virtualized environment (non-exhaustive list):

1. Easy to scale up or down when the requirements for the system change.
2. Easy to create a strong logical separation of the components by setting them up on multiple virtual machines.
3. More options for dividing the load of the individual components.

## 4. Use Cases

TripAiku is a generic rule-based alarm management system, and in this section, several specific use cases are provided.

### 4.1 Complex Heterogeneous System Monitoring

The monitoring of complex heterogeneous systems requires intimate knowledge of the interactions within the system and the effects that certain events can have. This knowledge can be captured in the rule-based platform of TripAiku to inform you of any combination of events and even states that may require the attention of an operator.

## 5. Configuration

The configuration of TripAiku is done using YAML-based configuration files that are human-readable and are designed to integrate well with configuration management systems (e.g. Puppet, Ansible, SaltStack). Administration tools are available for updating the database, based on the configuration files.

<b>Component</b>	<b>vCPUs</b>	<b>Memory</b>
Database (very dependent on data set size)	8	64GB
Event Loader	4	4GB
Synchronization Service	4	8GB
Workflow Management UI	6	16GB

## 6. Technical Specifications

### 6.1 Network Requirements

Gigabit ethernet is required for smooth operation of the system.

### 6.2 Security

The GUI has fine grained access control and support for the popular single sign-on providers. On the database-level, there is another layer of role-based access control, which is detached from the users in the GUI.

### 6.3 Browser Requirements

Recent versions of the following browsers are supported:

- Chrome
- Firefox
- Safari
- Edge
- Opera

Most notably, Internet Explorer is not supported.

## 7. Backup

The backup strategy is split into the 2 components Database and Ticket Workflow UI. There are different backup processes for those components which can each tie into a standard backup system in-place in an organization.

### 7.1 TripAiku Database

The database is backed-up using a scheduled backup process that generates a plain-SQL dump that is very safe for inter-version backup-and-restore situations.

### 7.2 Ticket Workflow UI

The Ticket Workflow UI software supports its own backup mechanism because it uses a specialized database. The result of this backup mechanism however, can be used for standard backup processes.