Everyware Cloud

- **Connect any sensor, device or asset to the platform to quickly create new and innovative products**
- **Dynamically and remotely create and add new services and functionalities to your field devices**
- **Configure the platform to analyze data in real-time and trigger immediate alerts**
- **Leverage a device-specific, message oriented infrastructure for fast and easy creation of reliable, device-independent M2M/IoT applications**
- **Integrate MVNO Connectivity Platforms to have a single point of management of Connected Devices and associated SIM cards**
- **Enable IoT Analytics through built-in connectors to online Dashboards and Analytical Reports**
- **Enable IoT Business Application Integrations through native REST APIs**

FEATURES

M2M/IoT Optimized – Integration platform designed from ground up to connect M2M devices (especially over cellular connectivity) to Enterprise IoT Applications

Connect & Manage – Any type of device can be securely connected and managed using an open protocol.

Always on – No matter which communication media is used, the platform will manage to automatically keep the devices connected.

Control – Manage the application of your remote device providing updates or new configurations to keep it efficient over time.

Device Functions Virtualization – Design M2M/IoT embedded software and IoT Business Applications that are fully decoupled from the specifics of the field devices.

Complex Event Processing – Sophisticated statistical rules engine to enable real-time data pattern recognition and action triggering.

Big Data Services – Schema-less, distributed, decentralized database for data aggregation and advanced queries.

IoT Analytics – One click Pentaho Connector for IoT Dashboards and Reports

Rich APIs – REST APIs, including PUSH, and integrated visualization.

Security – 360 IoT Security, a holistic approach. (User and Device Authentication, Authorization, Role-based Access Control, Encription and all IoT needs for security at any level).

Administration – Web Based Console for device, data and user management.

Health Monitor – Guarantee the SLA and uptime by continuous automatic and proactive monitoring system

The Everyware Cloud M2M/IoT Integration platform simplifies device and data management by providing an innovative platform that connects distributed devices to business enterprise applications leveraging secure, open and reliable protocols. Everyware Cloud is integrated with multi-carrier SIM management Platforms for automatic device-SIM binding and device management via SMS.

Everyware Cloud uses MQTT as the default transport protocol for device connectivity and adds intelligence on top, allowing customers to create innovative apps while reducing connection costs. The protocol is bidirectional, open, secure and proven in data intensive applications, built from the ground up to satisfy demanding M2M /IoT applications reliant on distributed devices.

The M2M/IoT platform allows to dynamically control, configure and evolve the app that runs on the field device through a fully integrated feature-rich device management layer. Any device can be easily configured, updated or modified without the need to use different tools or ad-hoc field services.

Everyware Cloud automatically stores device data into a schema-less, distributed, decentralized database which is fault tolerant and elastically scalable. This database stores any data in any format for the market's longest queryable period. The database also enables access to real-time data, in its native form, for use by the final application.

The M2M/IoT platform enables business decisions to be instantly triggered based on sophisticated mathematical and statistical real-time rules applied to device data streams. These unique capabilities, including data stream filtering, continuous queries, aggregation and correlation between devices, and event pattern recognition, ensure rapid reaction to business-critical situation detection scenarios and a set of unique features for the final M2M/IoT application.

Everyware Cloud is hardware independent; any device, even small footprint computational devices, can be connected with the platform to provide data to applications or systems to run the business efficiently and effectively.

The Everyware Cloud is architected for high availability, delivering failover redundancy, with data copied into multiple nodes and geographically distributed across different data centers. This redundancy translates into automatic and Transparent disaster recovery without additional configuration or lost productivity.

EUROTECH

Imagine. Build. Succeed.

Everyware Cloud

Application Integration

- Easy to Use REST APIs
- Encompass All Platform Functionality
- XML, Websockets and JSON Formats
- HTTP/MQTT Bridge for Device Control
- Real-Time REST/Comet APIs
- Readily Available Application Adapters:
  - SMS, Email, Twitter
  - MQTT
  - Third Party Application Adapters
- Google Chart Tools Native Support
- Extensive Documentation
- Complete Sample Code
- Rich Example Library

IoT Analytics Integration - Pentaho Connector

- Supervised automatic OLAP metadata generation
- Universal IoT ETL process (Extract Transform Load)
- Service Plans

Device Management*

- Laid over MQTT connection
- Device Event Logging/History
- Device Profile and Localization
- Device Configuration
- Snapshots and Rollbacks
- Application Lifecycle Management (FW, App remote update)
- Remote Device Access
- Remote OS Commands
- Based on OSGi Standard
- Device WakeUp and other services via SMS through multi-carrier SIM Management Platform Integration

* Requires Everyware Software Framework (ESF) layer at the Device/Gateway side

Device Connectivity

- Real-Time Device/Connection Status
- Secure with SSL and Authentication
- Designed on the MQTT Protocol
- Publish/Subscribe Protocol to provide One-to-many Message Distribution
- Optimized for low Bandwidth, expensive or unreliable Network Connections
- Proven M2M/IoT Data Model
- Built-in Device Tracking
- Device Initiated Connection
- 2-way Communication
- Java, C++ Agent Implementations
- Everyware Software Framework (ESF) Client Implementation
- SMS-based Alternative Bi-directional Connectivity

Big Data Management

- Database optimized for large volume inserts
- Redundant, Replicated, Highly Available
- Data Discovery on Assets and Topics
- Data Aggregation on Topics
- Big Data Ready

Health Monitoring

- Monitors the "vital parameters" of every other building block of Everyware Cloud
- Guarantee the correct Service Level (SLA) execution of the platform

Complex Event Processing & Notification Engine

- In memory data analysis
- Continuous queries
- Statistical operations
- Users: SMS, Email, Twitter
- Application: REST
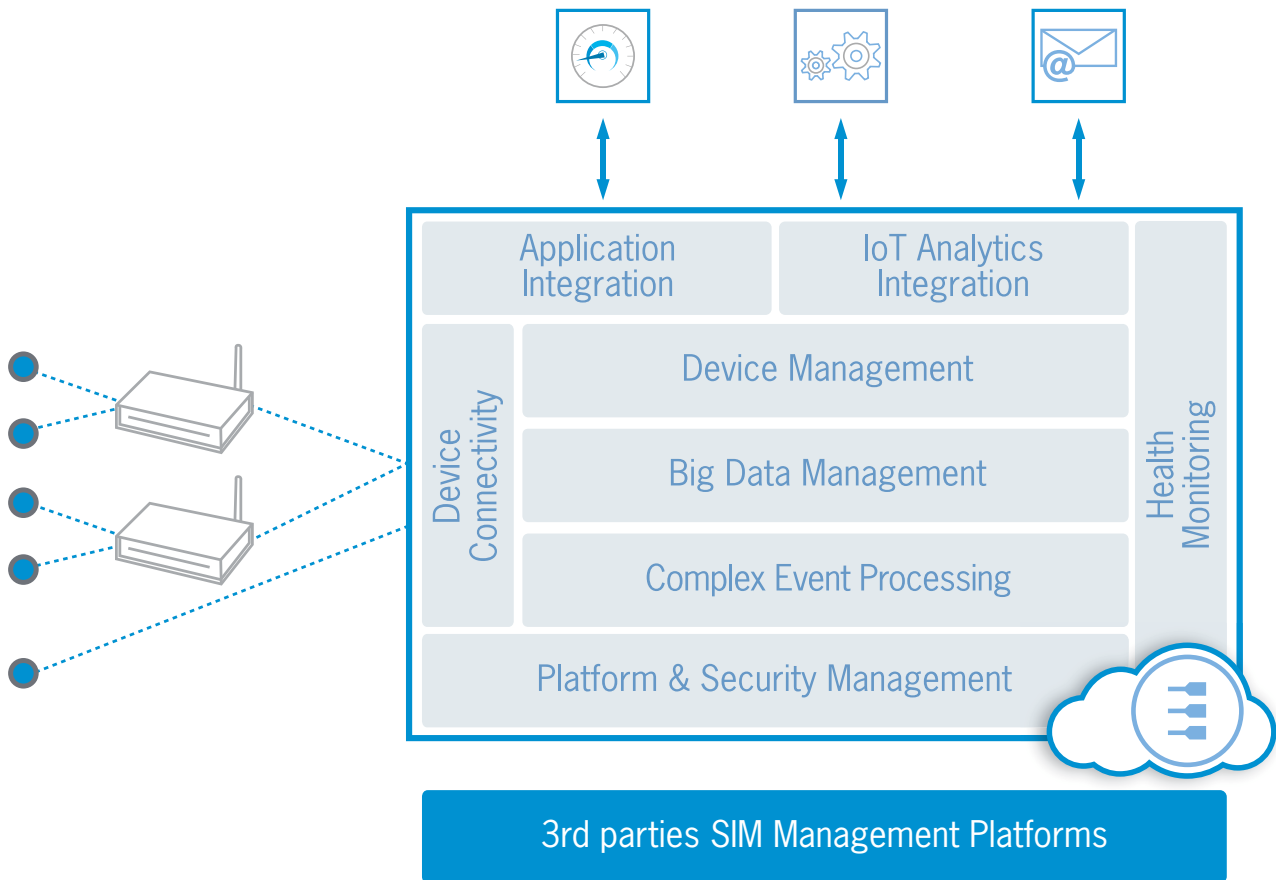- Devices: MQTT, REST & Websockets

Security

- Centralized Access Control
- Authentication via HTTPS and SSL
- Role-Based Access Control
- User Management
- Roles and Permissions
- Device Authentication
- Signed Device Management Messages
- Two Factor User Authentication

Platform Management

- Web based Console
- Multi-Tenant Architecture
- Topic Partitioning for Messaging
- Service Plans
- Usage Tracking
- Automated Provisioning of New Tenants
- Management of Dedicated Instances in the Cloud

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Cloud-Based Device and Data Management Platform

Application Integration

IoT Analytics Integration

Device Connectivity

Device Management

Big Data Management

Complex Event Processing

Platform & Security Management

Health Monitoring

3rd parties SIM Management Platforms

M2M/IoT Integration Platform

Everyware Cloud

19" Appliance
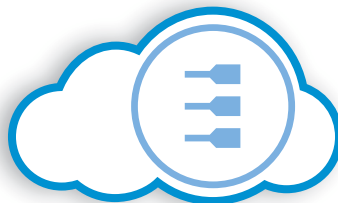
Private Cloud

Public Cloud
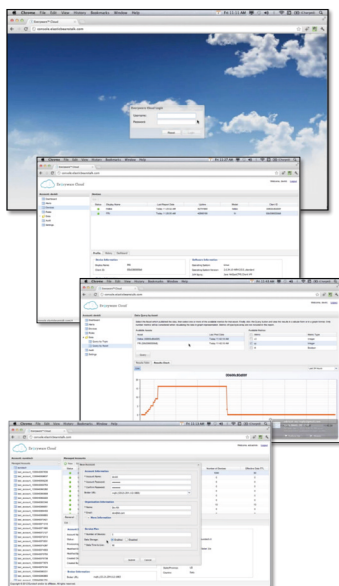
Everyware Server

Everyware Cloud

Everyware Cloud

Platform: Scalable, cloud-based M2M/IoT platform for connecting devices and applications

- Multi-Tenant Architecture
- Data agnostic platform
- Connects any number of devices and applications
- Many-to-many relation between devices and applications
- Built-in device status map
- Add devices with "zero configuration" process
- Powerful device SW and Application Life Cycle Management functions
- Store any type and any quantity of data with no time restriction
- REST APIs for application development (including console features)
- Rules Engine for real-time data analysis and event processing
- 2-way communication channels with devices
- Redundant and highly available with failover mechanism built-in
- VPN one-click remote device access
- Universal connector to third parties (MVNO) SIM management platforms (Vodafone already connected)
- SMS services: device wakeup, check modem connectivity status and use SMS message transport

Platform Console: Web-based interface for platform management

- Real-time device and data management
- User management
- Immediate data aggregation and visualization
- Rules creation section
- Real time management of SIMs bound to connected devices
- One-click OLAP metadata generation

Device Connectivity: Easily and reliably connect any kind of device

- Scalable and optimized bidirectional device protocol
- Based on MQTT v 3.1 (openly available)
- Efficient EDC message format
- Secure with SSL and Authentication
- Everyware Cloud clients available for third party devices
- Java and C++ clients available

Device Management: Remotely configure and update your devices

- Laid over a single MQTT connection and based on OSGi
- Secure with SSL and Authentication
- Remote device configuration and control
- Full application lifecycle management
- Configuration history and rollback feature
- Mass Provisioning
- Mass Update
- Device Jobs Scheduling
- Connector to Vodafone SIM Management Platform

Application Development: Base your application on a standard, flexible interface

- Easy to use REST APIs for application development
- XML, WebSockets and JSON format

IoT Analytics Integration: One-click generation of OLAP metadata

- Pentaho Connector
- Universal ETL process
- OLAP metadata generation ready for IoT Dashboards and Reports

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