

FACT SHEET

Freestyle M2M Platform FMS1000 - Making M2M *Intelligent*

M2M is transforming the way companies connect 'things' to the internet and in doing so opens up a range of possibilities for how businesses will run in the future, how they will grow and how they will keep customers happy.

At Freestyle, our mission is to make that a reality for our customers. We want to transform the way businesses and individuals use and interact with their devices. With our open and flexible platform, companies can connect any type of device, to multiple locations, across a range of vertical markets. With unprecedented flexibility, the Freestyle Platform empowers our customers to provide innovative solutions at a competitive cost point.

Because the Freestyle Platform is open, customers aren't locked into a proprietary system that is expensive to maintain and operate. Freestyle's customers have a completely open and flexible solution comprised of the Freestyle M2M Switch and Microengine. Our solution grows with our customer's needs and a changing marketplace. New applications are simply downloaded without any need to replace end devices. With applications tailored to meet the needs of individual customers, the Freestyle Platform is turning into a reality The Internet of Everything.

Every Device

Freestyle's Microengine (FME) can be integrated into any device, giving customers control over a multitude of applications and how they operate.

With easy to operate management tools, the FME is flexible enough to support simple battery operated devices right through to complex environments with thousands of devices. The outcome for customers is peace of mind that the same control and management platform can be used for all devices from simple to complex and from a variety of manufacturers.

In addition, the FME can adapt to ever changing market needs with new applications simply downloaded without the need to replace devices. Delivering a flexible solution that grows and changes with customer demand.

Every Network

The Freestyle M2M Platform is able to work within every network environment. It supports wireline, wireless including 2G, 3G, LTE and Ethernet, Serial, ZigBee, WiMax, xDSL and Fibre. The FME is also able, via its intelligent system, to continue to operate and perform functions even when the link between it and the server is lost, providing a fail safe system that won't let customers down.

Every Application

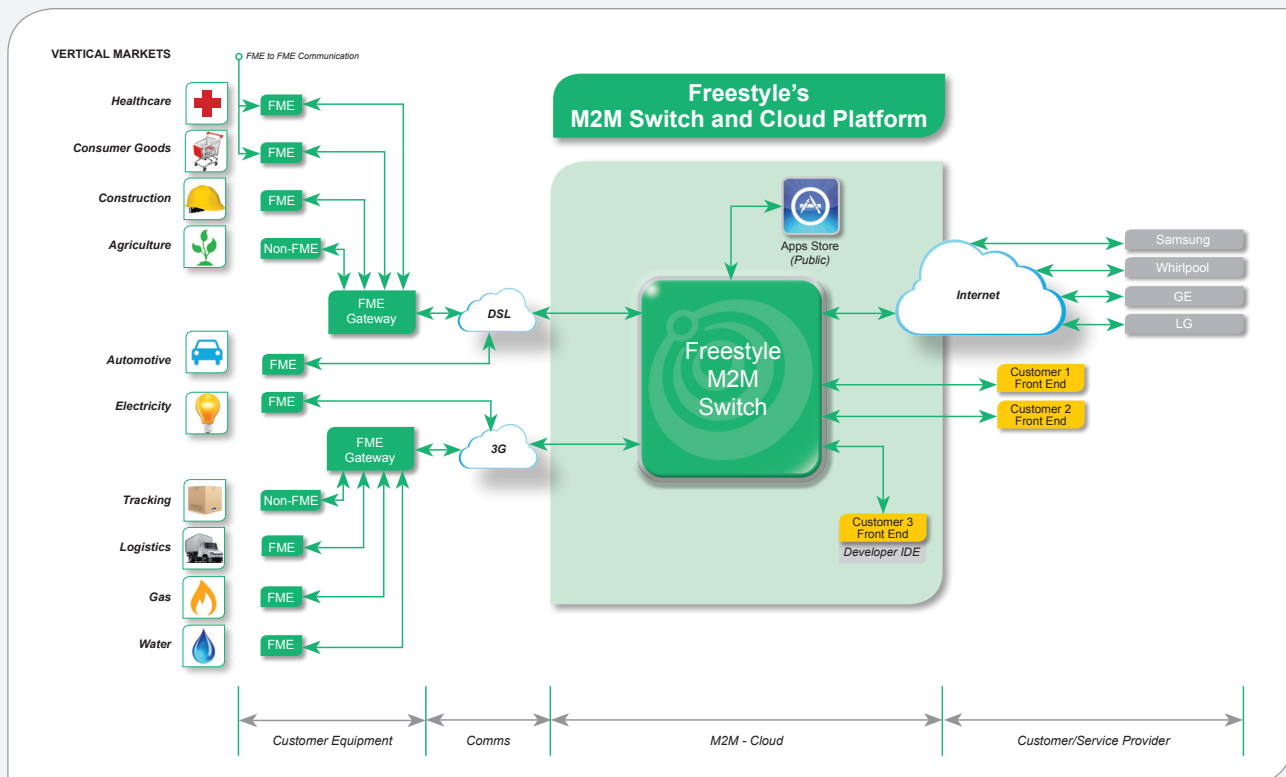
Operating in an open application environment, the FME can embed its operating system into any device and tailor that to individual customer needs. Supporting a variety of programming languages such as LUA, the FME has the ability to turn a 'dumb' device into an intelligent end point. In essence, with the FME, any application can be downloaded to the end device to perform any function required by the customer.

TECHNICAL DATA

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Freestyle's M2M Platform consists of three main components:

- M2M Switch
- Cloud Instances
 - Message Bus
- Freestyle Microengine (FME)



Cloud Instances

Cloud Instances manages the end customer's private network of FME and non-FME enabled devices.

Cloud Instances handles message correlation, message decomposition, and message transformation; as well as scheduling, security, optimisation, load balancing and event handling.

Cloud Instances receive all external requests from the M2M Switch or from internal business systems via a Web Services interface. To facilitate the web services to applications and devices, business rules are used to validate incoming requests, and to transform messages.

Cloud Instances identify the destination FME application, routes the message to the appropriate message bus for delivery, and returns the application response. It controls the execution of transactions between consumer and application as well as between the internal Freestyle components. It also records all currently active messages and outstanding application requests.

The API to the M2M Switch and Cloud Platform can be accessed using either Web Services or WebSockets.

Message Bus

The Message Bus is a scalable, highly redundant, elastic, load-balancing networking device, which manages all physical communication with the

FME. Message Buses collect information about the network health and topology, manage FME messaging and notifications and forward all information back to the Customer's backend systems.

FME

The FME is an open and interoperable application runtime environment designed to support small through to large embedded devices. Primary features of the FME include:

- Open and Interoperable Applications environment
- Intelligent end-points
- Intelligent applications downloaded to the end-point after installation
- Distributed Automation
- Distributed Intelligence
- Communications agnostic

FME Device Types

Gateway: An FME enabled device used to manage FME and non-FME devices within its operating area and forwards applications to other FME gateways or FME end-points.

End Point: Device at the boundary edge of an FME enabled gateway operating area.