

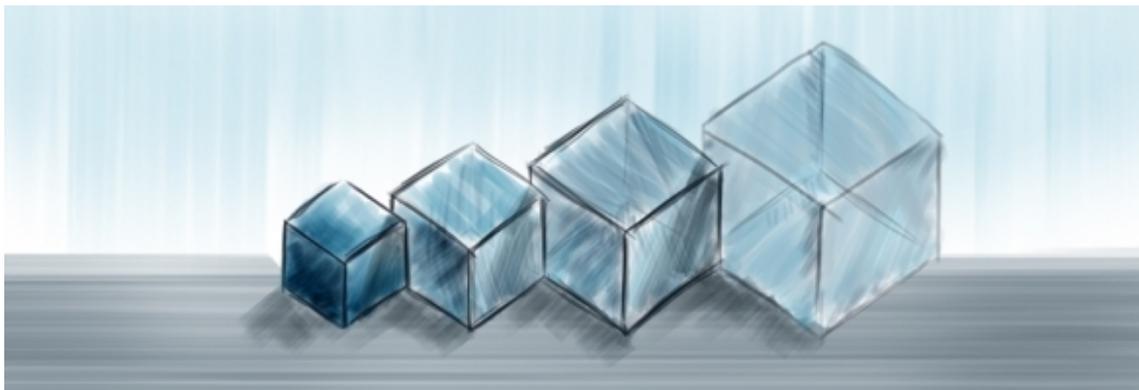
Post

Managed Connectivity



Efficiently managed communications between things

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What is a machine in the M2M context?

An object that has the purpose and the ability to communicate with other objects, receiving or sending information.

To simplify it further:

A M2M machine is a thing that does something because other thing tells it to do so, and at the end of all this chain of things there is a person (which still is another type of "something...").

The shape of M2M

The most common case of use is that of an enormous number of isolated machines, distributed along a very extent geographic area, that have to communicate with a central machine, the server, to send data and instructions.

The essence of M2M services is characterized for its dispersion through the geographic space, for its massive nature, its necessity of make communications independent and for its mobility.

The layers of an M2M service. From the black box to the transparent box

In all the processes of communications between machines, three layers of different services exist.

Each one must function correctly, if any of them fails, the service cannot be provided. All of the layers must be visible and must be controlled.

M2M services provide transparency and control. But...

How do we solve transparency and control in each of the layers?



-Controlling the communications. Good bye black box.

We don't know anything of the internal functioning, hence, we don't know if it's operating correctly or not.

If there is no communication, even if the machine works, the process won't.

This problem is solved by using an M2M platform, by which we still won't be able to know if the service is working properly or not (just partially), but we will know that it has a possibility of working, because the machines are able to communicate.

-Controlling the machines. Learning how to take care of the Box.

The black box now becomes a box with some transparent parts and some opaque parts.

Managing the lifecycle of the machines, its functioning status and doing it remotely when it's possible is a necessity in an M2M system.

This part of the system is included in two concepts: I+M and DMM (Installation and Maintenance, and Device Management and Monitoring).

Now we know that our machines are visible and are communicated with each other, and we know how they are. We are closer to the transparent box.

-Controlling information. Transparent box: tell me what you know.

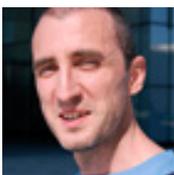
There are two ways to approach the design of solutions for the data layer in M2M services:

Build a specific service for that case or get the support of an M2M horizontal platform that solves the common issue.

The common issue is the capability of interacting with the machines to send and receive data from them, store that information in a database and enable mechanisms so that the external consumers can access that information, know their changes and use the data for the whatever purpose. We call this component Data Collection and Analysis.

Now we have the transparent box.

It is not that the machines aren't going to fail, they sure will, but when that happens, we will know and we will be able to correct the problem immediately. Uncertainty is the real killer.



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