oneM2M
A Path to Growth for SMEs

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Focus on the Market and Potential Growth for Enterprises

- Other people in previous presentations have already explained key points about oneM2M:
  - How oneM2M enables interoperability
  - How it fosters the creation of an eco-system

- We are going to explore how oneM2M can be good for the business, because:
  - It is a standard
  - It is the blueprint for a platform, not just an interface

- And how it can be especially interesting for SMEs

- In many cases, parallels can be drawn to GSM experience

oneM2M is a Standard

- oneM2M is a standard: it means that no single company owns it.
  - Any company can build an implementation:
    in fact, there are several implementations, both commercial and open source: this gives freedom (and enables competition); compliance can be certified
  - oneM2M does not pose restrictions to companies willing to deploy an implementation and run/offer services based on the standard
  - At the same time, no single company can decide to shut it off, or unilaterally change the expected behaviour: this ensures long-term stability

- GSM parallel: manufacturers develop infrastructure solutions (and terminal devices), and operators offer services to the public.

oneM2M is a Platform Blueprint

- The oneM2M standard defines a platform, not just an interface for data exchange:
  it means that all implementations are expected to have the same behaviour and provide the same services to users

- This has been proved in the field, e.g.:
  - TIM and Deutsche Telekom interconnected smart cities, running very different implementations from each other.
  - The setup only took a handful of days.

- GSM parallel: all implementations are expected to work the same way, both together and with respect to any mobile terminal

The Market 1/3: Supply…

- There are two sides of the market: supply and demand

- It is easy to be fascinated from the companies on the supply side:

  - They look (and often really are) advanced and technologically smart
  - And get the most coverage by the media (actually they need that for their marketing)

- But what about the other side?

The Market 2/3:
...and Demand

- The demand side is where many more companies and users are

- This fact might be less visible: after all, companies on the demand side need less exposure (with respect to their position as buyers of course), so the demand side is largely under-represented

- Most of the money that moves the market, however, comes from the demand side...

The Market 3/3: Demand and Supply, together

- For the economy to be thriving, both sides of the market need to be in good health

- Both supply and demand can benefit from the adoption of standard, this is a common objective that can be shared

- But any approach, to be really valid, must satisfy the requirements of the demand side

Benefits from Standards
The Basics   1/2

- A large part of the benefits that businesses can get from the adoption of a global standard like oneM2M are associated with life cycle management in the context of a healthy eco-system, e.g. :
  - No vendor lock-in
  - Can change vendors if needed
  - Multiple vendors can coexist at the same time: for each function/service, users can choose the preferred one according to their own needs
  - If the effort for integration of different kinds of devices (possibly from legacy) can be reduced, larger parts of the budget can be directed towards the implementation of the functionalities/services that create real value
  - If installations need to be interconnected and integrated, the task can be greatly simplified. This is often desirable when setting up a tighter supply chain either between departments or a whole set of companies, or in the case of merger/acquisitions

Small
Business
Standards

Benefits from Standards
The Basics   2/2

- From the standpoint of governmental or regulatory authorities, favouring the adoption of a public, neutral standard like oneM2M has positive aspects as well, e.g. :
  - It does not favour any single company
  - It helps to open the market and enhance fair competition
  - It can help to ensure asset protection and durability
  - In the case of public bids, it helps to create a basis for the comparison of the various offers

- Again, a parallel to the GSM experience can be drawn

More Details
Supply Side   1/2

- Companies on the supply side can benefit in various ways, depending on the kind of their business:
  - The typical case is that of manufacturers of devices, or developers of applications: in the absence of a generally accepted standard they are forced to ensure interoperability with a plethora of different platforms (even if some of those appear to allow the use of similar protocols for data ingestion, it usually happens that the format of exchanged data is different)
  - This effort ties up precious resources that could be better used if put to work on the core functionalities of their products.
  - This is particularly true in the case of SMEs, of course, so for them it is even more desirable

More Details
Supply Side   2/2

- Companies can also play a role in providing the platform itself to selected customers, either for installation on-premise or on the cloud.

- Even SMEs can do that, if they find a suitable market niche: in Europe there is the case of a very small company that is successfully positioned to provide services to supermarket chains, based on their own implementation of the oneM2M standard.

More Details
Smart Cities / Public Utilities

- Most of the benefits that can derive from requesting in tenders that the offers conform to a standard like oneM2M have already been mentioned:
  - Market fairness, ability to choose vendors more finely, ensuring asset protection, easier comparison of offers etc
  - Easier integration among systems and utilities that share the conformance to the standard, even if they come from different providers

- If an approach like this can encourage the emergence of companies providing the backbone for utilities, a further consideration can be done:
  - under the right circumstances, money that is spent in the country stays in the country and may contribute to the growth of its economy

More Details
The Industrial Domain

- There is a global trend towards digitalization of operations in the industry, particularly in manufacturing: Industry 4.0, or the Connected Enterprise

- IIoT (Industrial IoT) technologies are more and more used: in fact, several studies support the notion that in the near to medium term most of the money going to IoT will come from industrial domain applications

- Companies of all sizes are driven to IIoT technologies for various reasons, e.g.:
  - The need to support functionalities for which traditional solutions appear less suitable
  - The desire/need to reduce costs: in many cases the IIoT approach is less cost-demanding that traditional approaches

- In this context, there is the need for the interconnection of all the systems on the shop floor, and between factories as well

A Platform Blueprint

- oneM2M is a blueprint for a platform that is well suited to the needs of the industrial domain

- It enables interoperability with devices and sensors on the shop floor, going beyond the capabilities of many SCADA systems

- It acts as a hub, allowing the deployment of data management and analytics applications from different vendors

- It supports the interconnection of plants and factories to fit the need for integrated supply chains

Desirable for manufacturing companies

- In general, it can be said that proprietary solutions may limit the ability of companies to pick exactly the various components of their operational structure according to their needs, on a case-by-case basis: it is one of the aspects of the tug-of-war between suppliers and users
    - The key point is that users benefit from standardization because it opens up a wider array of choices from the market, so that they can choose according to their own criteria (e.g. quality, price, special features).
    - In this way they can design systems tailored to their needs while standing reasonably assured that the various parts fit together even if they come from different providers.

Even More Desirable for SMEs

- SMEs in the manufacturing industry will benefit the most from the adoption of a standard, particularly a public one like oneM2M

- The reason? SMEs, as customers, have much less leverage than large companies with respect to their providers, so the intermission of a standard conformant platform may help to break the grip of a large supplier

Thank you for your attention!

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