

Opportunities in the Machine to Machine (M2M) Market

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The business opportunities today and over the next decade in machine to machine communications are nothing short of stunning. The compelling potential however, does not mitigate the need for effective **strategy development**. The opportunities fall into three categories;



Suppliers - of the hardware and software of M2M communications
Supporting – for marketing, implementing and servicing M2M applications
Customers – seeking to apply M2M technology for competitive advantage

Background

Before commenting on each, it is necessary to explain what is meant by M2M. Most people are familiar with receiving and sending data such as texts or emails via a mobile phone. What is less familiar are the hundreds of other mobile data exchanges, ranging from GPS navigation (increasingly common in motor vehicles) to land sensors providing early warnings on environment changes such as earthquakes or remotely monitored pace makers for improved healthcare.

The generic application, M2M (machine to machine) communication is increasingly independent of having a hard wired connection and at an economic cost increasingly viable for more applications. The genesis of this group of applications is telemetry, used extensively by NASA from the beginning of the space program. Back then it was high tech, high cost, high complexity. Successive generations of communications technology and data processing applications have converged to spawn a fast growing array of opportunities.

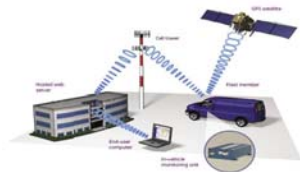
Strategy development to take advantage of the next decade is well advanced, with plenty of blue sky still ahead.

The M2M device, software, network, and service market is expected to grow rapidly world wide. Some estimates suggest the 2010 world market may exceed \$300B in annual revenue on a compound growth rate trajectory of as much as 35% per annum. Where as there are some 500 million computers in the world and 1.5 billion cell phones & PDAs, it is estimated there are more than 38 billion other electronic devices that have information perhaps relevant to improving an enterprises operation. In addition, new devices emerge as M2M potential becomes more apparent. The M2M market strives to connect these devices to corporations, governments and institutions.



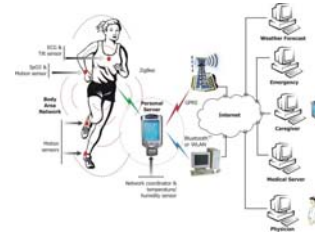
The Opportunity to create Business Value

The value proposition is 'generating information which can make money, improve lives or both'.



If sensors monitor the health of a motor vehicle and the data tracked by fleet management, intelligently identifying the cost minimizing time for service or repair, fleet managers will pay money for the service. If the power company can read meters remotely, it can generate accounts

without needing a person to visit the site. What if sensors monitor the health of patients with severe medical conditions? The data tracked by healthcare specialists, intelligently identifying early warning signals of risk escalation, money can be saved through preventive health and even lives can be saved by faster intervention.

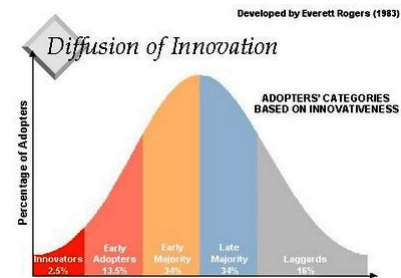


The Adoption Curve

By 2006, higher speed technologies are paving the way for the deployment of communications devices into more and more machines. (Those technologies include 3G, HSDPA, higher speed modems and packeting techniques that compress data)

Whilst forecasting is always difficult, it is not unreasonable to deduce that there is now a convergence of;

- Higher speed communications encoders and decrypters
- Accelerating deployment of wireless networks with longer distance capabilities
- Increasingly 'intelligent' software
- Demand growth for real time information and responses and
- Increasing expectations of and use of mobile communications



Such a convergence will accelerate M2M adoption, exponentially.

Consider the possibilities

In no particular order, but as a way of expressing the exploding commercialization opportunities in M2M, examples provide a compelling illustration. Here is a quick 20.

1. Automatic meter reading (from power to car parking)
2. Refilling vending machines to maintain optimal inventory vs cost status
3. Road traffic management improvements
4. Machine breakdown prevention
5. Remote security management



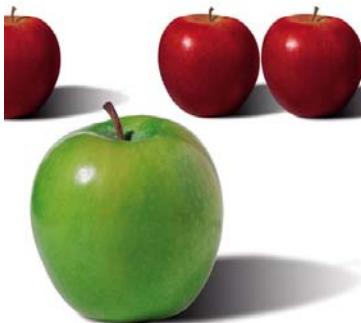
6. Fleet management
7. Livestock health monitoring
8. Soil conditioning (by farm, paddock, row or plant)
9. Pollution monitoring and prevention
10. Military Asset tracking, including personnel
11. Parking sensors to aid the driver (today) and vehicle to vehicle communication to prevent accidents or avoid traffic jams (in development)
12. Utility security and maintenance management
13. Product transportation tracking
14. Mobile entertainment, navigation, security and communications
15. Pay as you drive vehicle insurance
16. 24/7 automated healthcare
17. Mobile phone banking
18. Payroll and penalty supervision
19. Materials fatigue monitoring via sensors (eg in aircraft, mining equipment etc)
20. Communications network performance monitoring, by communicating device.



Strategy Development in M2M

Just as the internet stimulated thousands of new businesses and so called 'business models'. Most of those businesses failed as a result of poor strategy development. By 2001, the dot com crash drove home the message that good strategy requires a focus on increasing return on investment. Indeed, the reputation of several **management consultants** was tarnished at the time, including the market departure of Andersen Consulting. The idea that value is generated by growth in market capitalization is illusory if it is not backed by net revenue growth as a percentage of investment. Eventually, the market capitalization dissolves.

M2M is likely to drive the same explosive interest. M2M applications can drive down business costs and business will pay a proportion of that saving for cost reduction. (eg reducing equipment downtime and maintenance costs) M2M applications create new services which, if they don't drive down costs, create greater value for which customers will pay a premium. (eg 24/7 healthcare will be highly valued by a segment and may be demonstrated to lower health costs simultaneously) Both examples illustrate opportunity – but **strategy development** is required to ensure there is indeed, a **competitive advantage** capable of delivering superior return on investment.



Competitive advantage is still one of the best measures strategic thinkers have for determining whether or not a course of action is likely to improve return on investment. 1st mover is not an advantage if it does not reduce the competitiveness of other players in your target segment. A 'business model' that mathematically makes money is not a guarantee of success if the model does not deliver you a standout result in a high demand target market with either a sustainable cost advantage or sustainable difference that is highly valued.

The Business Case in M2M

Whilst many developments in M2M are high risk, they also offer high reward. The opportunity for reward however, is derived from a clearly articulated strategy that demonstrates a sustainable **competitive advantage** and growing return on investment.

No matter what industry sector, biotechnology, ICT, transport, environment, security or any other, it is important for strategic planning to move beyond the technological potential to deliver benefits, to a strategic plan that delivers;

- sustainable **competitive advantages**
- growing real return on investment, beyond the capital value of future potential
- clearly identified key success factors and
- risks and the extent to which they can be mitigated

Disciplined strategy development can protect M2M from a 'dot-bomb' experience and instead, create tremendous business value.

For more information, see **Management Consultants** [TMG](#)



With more than 21 years in **management consulting**, TMG has conducted strategy development projects working with Virgin Mobile, Telstra, Optus, Nextep (NEC), Compaq and many others leaders in the ICT market.