Mobilising Workforce Enablement:
The Extra Dimension

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This white paper details the key points from the event

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1. Embracing a new paradigm

What is driving enterprise mobility today?

Our love affair with Smartphones as consumers shows no sign of letting up, and has become one of the three essential items we will not leave home without, the other two being our wallet/purse and our keys.

The rapid pace of change of mobile technology has seen us enter a new paradigm in the way we live and work, and the statistics speak for themselves. This year alone, Deloitte predict that 1bn of us around the world will be updating our Smartphones for new models.

The business case for mobilisation has changed beyond recognition in just three years. Where the capital expenditure required was once prohibitive, with fit-for-purpose devices often costing £1000, there was sometimes no viable business case. But with sophisticated low cost Smartphones, the business case is heavily weighted in favour of deployment – given the quick rate of ROI which can be realised.

What's next?

Wearable devices are starting to gain momentum, with the health and fitness sector being the single biggest user of wearable technology with 20 million devices sold in 2014 according to CCS Insight.

CCS also predict that 2015 will be hailed a transformative year for wearables, leading to sales of 172 million devices in 2018. So far the sales of Smartwatch technology has been slow in the consumer space and is yet to establish itself as a unique platform predominantly due to early models having significant functional overlap with its big brother the Smartphone and ultimately relying on a Smartphone as a companion device.

However, wearables and specifically Smartwatches are starting to drive new and unique business models which has resulted in pioneering businesses' adopting this exciting new technology to solve operational inefficiencies where the Smartphone cannot.

Being a truly hands-free device has resulted in businesses revisiting their mobilisation strategies as those who have already mobilised are considering updating or extending their mobilisation programs to include wearable devices, specifically Smartwatches.

These devices offer a unique solution to businesses by overcoming the usability barrier presented by Smartphones and tablets, giving workforce mobilisation a new model, or what is being dubbed "the Internet of People".

Mind sets are changing

The total wearables market across the UK, Germany, Spain and the Netherlands alone will be worth **€1.16 billion** by the end of the year.

What the Analyst Industry thinks:

- Wearable tech to be a $10 billion industry by 2016 - Gartner
- In 2014 we saw the commercial availability of a range of wearables, a richer set of business models, the entry of bigger players and the maturation of business models – Forrester
- According to PWC, employees are expecting their employer to provide them with Smartwatches as part of their job function.
- Attachment or autonomy for wearables will be a personal choice for the consumer, however the business community is a clear choice for the autonomous wearable.
- Interestingly Mexico, China and India are ahead of the game from a wearable deployment perspective. The UK and USA are behind the deployment curve.

Enterprise wearable drivers are seen as distinct silos;

Organisations consider that priorities for wearables are:

- Monitoring
- Efficiency
- Hands free

Where the individuals consider:

- Style
- Wellbeing
- Safety

Samsung launch a game changer with the Gear S being independent of a Smartphone

Autonomy via 3G connectivity is just the tip of the iceberg. Samsung's Gear S is the first of its kind to contain a 2" curved Super AMOLED display with a resolution of 480 x 360 pixels. It's powerful too, with its 1GHz dual-core CPU and 512MB of RAM. It features 4GB of built-in memory, 2G/3G, Bluetooth 4.1, Wi-Fi a/b/g/n, GPS/GLONASS, and USB 2.0.

The Gear S comes with built-in accelerometer, gyroscope, compass, heart rate monitor, ambient light and UV sensors and a barometer.

Being IP67 certified it is water and dust resistant and the 300mAh battery will power two days of typical usage.

The Gear S comes complete with a range of apps from social networking, calendars and applications which function with or without a Smartphone. It also includes useful turn-by-turn pedestrian navigation provided by HERE.

To top off this long list of impressive capabilities, the Gear S enables users to seamlessly make and receive calls directly from their wrist (an optional Bluetooth enabled neck accessory can also be used for receiving calls). It allows users to instantly reply to incoming messages using the onscreen keyboard, or utilise enhanced S voice functionality to ensure tasks can be completed immediately.

Business transformation

With more enhanced multi-sensors, built-in GPS, and robust S Health features, the Samsung Gear S is the perfect health and fitness companion. Applications such as Nike+ Running allows users to track their runs and stay motivated while on the move, without having to take their Smartphone.

This array of sensors and connectivity could be used to protect the field workforce, the Smartwatch could detect inactivity, trips or falls, and have a panic function, automatically alerting relevant parties so that a quick response can be put into action. The GPS in the Smartwatch could also be used to monitor the whereabouts of the individual, offering peace of mind.

The introduction of the Samsung Simband has the potential to completely revolutionise the monitoring of at risk patients. This modified watch strap for the Gear S contains additional sensors including PPG, ECG, Bio-Z, GSR, Skin Temperature and ECG lead.

There are numerous use cases that would suit wearable technology, from the simple to the more sophisticated, including retail point of sale, time and attendance monitoring, process compliance and health and safety, in a whole range of industry sectors.

Wearable technology will transform businesses in all sectors

- Real-time information and productivity
- Building access control
- Customer service
- Emergency services
- Healthcare
- Retail
- Facilities Management
- Utilities
- Fieldworkers and logistics
- Security
- Domiciliary care

2. How wearables will transform business

In the case of both Heathrow and Dixons Carphone Group (DCG), their approach to technology and innovation is by an agile proof of concept process, based on user group feedback of operational issues that "keep them awake at night". The POC is created quickly and most importantly, piloted as quickly as possible, then either roll out or re-group, iterate or terminate.

Both organisations do not see failure of a POC as a negative, as every POC will result in business insight, either through new operational knowledge to take into the next project or the discovery of new operational challenges to overcome to ultimately create a more agile, efficient process.

In both cases the Smartwatch platform delivered a unique set of physical and technical benefits over using a Smartphone and tablet, the common themes with both projects are:

- Simplicity
- Hands free
- Vibrate alert

Carrying a device around in store, such as a Smartphone or tablet (in the case of DCG) would operationally disable the DCG colleagues from performing their daily tasks and will cause the device to be put down or put in a pocket, which could lead to them missing an important store alert. DCG also think a larger device places a "barrier between the colleague and the customer".

The DCG wearable app delivers a better in store customer experience by significantly improving the speed of stock enquiries for a customer and informing the stores to pick the item and bring it to the customer or the check-out. The app reduces the time to address a customer enquiry from several minutes to almost instantly having an answer.

Added value

However for DCG it doesn't stop here; with the new system, their colleagues can now up-sell to their customers, as the wearable app will also prompt the colleague to point out any offers around their particular purchase and enable them to add these to the order, including insurance cover, to any purchased products.

In a later phase, a price comparison function will be included to assist with objection handling along with a voice over IP (VOIP) function to replace the in-store two-way radio system.

For DCG this is just the start of their wearables journey.

Agile discovery

For Heathrow, it's a very similar story, however their project started life as an innovation day. Staff were invited along to look at the latest wearable technology but within the context of airport operations.

To facilitate this TBS and Samsung worked with Heathrow to develop two proof of concepts on the Samsung Gear S Smartwatch. This enabled the team to demonstrate the abilities of the Smartwatch in the context of the airport.

Over three days 200 employees saw the POC and were asked to come up with a potential application on the Gear S that would solve operational problems.

Out of the many ideas put forward, these were narrowed down to eight significant applications that would improve airport processes and people.

The operational process to be solved was the Snow and Ice removal process, simply because this could potentially save the airport millions of pounds by removing/reducing airport closure time. The head of snow removal for the airport was also convinced that the only platform that could effectively deliver a working solution was the Smartwatch, as the technology would allow the user to have both hands free at all times and the vibrate function was 100% effective method of alerting the user of an incoming priority job.

Connected homes to wearables

In the case of Halton Housing, innovation is a necessity for survival due to the benefit system changing in 2018. These changes will result in all housing associations embracing technology to improve and rationalise what is currently a Dickensian operational approach.

Halton are seen as true pioneers in their industry and as such, Nick Atkin their CEO, is utilising what the private sector would consider as traditional mobile technology within their business. However, Nick is also investing heavily in IoT and his connected homes strategy of intelligent use of heating and power systems within his housing stock has the potential to reduce heating/energy bills for tenants by as much as 30%.

Building on this, Halton are looking at wearable technology to help monitor and assist "at risk" tenants by checking their whereabouts, essential for tenants with Alzheimer's, and to monitor trips, falls and inactivity.

Halton see that wearable technology can be their remote eyes and ears. Taking this one step further using the step counter/ movement detector and heart rate monitor on board a Gear S they will be able to gather invaluable data that will give them a movement/characteristic fingerprint of individuals and using data analytics to alert care workers to uncharacteristic behaviours.

Halton also see the Smartwatch as a key tool for their own workforce protection as some of the areas they work in, carry risk. Providing a lone worker solution with a panic button on the wearable device will go a long way to protect the workforce.

3. Panel Session

Q. How do you manage corporate data leakage on the Smartwatch?

Answers from panel:

1. A wearable device is no different to a Smartphone when it comes to security. Reduce the risk by minimising sensitive data stored on the device.
2. Samsung are currently looking at ways of making wearables secure, this will provide the same level of security that can be attained on a Smartphone.
3. Containerisation is a sensible approach; make sure you develop a secure app on the wearable. If the wearable is used to access enterprise systems such as email and corporate intranet, there will be a need to provide more resilient platform management.

Q. What is the view from the wearer in terms of the Big Brother effect?

Answers from panel:

1. The snow clearance team loved the wearable as it made it easier for them to do their jobs, the benefits to them outweighed any perceived negatives.
2. Turn around what frustrates people and sell the solution and device in a way which empowers them to be more efficient. People will buy into this, as it removes barriers and frustrations that were previously faced.

Q. Do you see the direction of wearable devices moving towards autonomous v companion?

Answers from panel:

1. Whilst being capable of delivering business applications, Smartwatches that ultimately depend on having a complementary Smartphone to deliver the wireless connectivity weakens the business case.
2. With a companion device, the Heathrow project would not have got off the ground, as a companion drives up the cost and the risk of communications failure.

Q. Could voice control be used on wearables?

Answers from panel:

1. Consistency and accuracy is critical, and as yet voice control is still not 100% accurate and can be frustrating, after a short space of time the user will resort to more traditional methods of interaction. Voice recording is still an option on wearable technology along with voice over IP to talk to other colleagues.

In terms of health benefits, what is the potential?

Answers from panel:

1. Improving employee health and wellness is a common goal for employers, but addressing the needs of individuals at varying levels of fitness is a challenge. Wearables can be seamlessly integrated into a corporate wellness programme, providing motivation and recognition for the efforts of employees.
2. Wearables could be used by insurance companies and this is an interesting area as we all pay for bad risks. As soon as health data is made available, risks become more apparent. Individuals could certainly monitor their own health, but do we really want to? If you are fit and well, why would you not want to monitor your health if it were to lower insurance premiums?
3. The NHS should be looking to change their health care model to preventative rather than reactive; encouraging those at risk to wear these devices.

Q. Given the size of the screen, how do you provide a good user experience?

Answers from panel:

1. Don't try and create complex apps; keep the design simple and always involve the user in the design process. Minimise scrolling and don't overload the screen with data.
2. Don't try and fit a Smartphone app on a Smartwatch, it simply will not work.
3. If you get it right the user experience should be a natural, intuitive one.

4. Conclusion

In 2008 the world changed for ever, and the global recession is still sending shockwaves around the commercial world even today. The key to business survival and sustainability, is the capacity to rapidly change to meet future challenges. The adoption of innovative technology in business will differentiate us from our competition.

The Extra Dimension event presented, through case studies, a refreshing approach to adopting new technology in an agile but more importantly, a cost effective way. This approach should be embraced by all businesses; being adapted and improved to stay ahead of the innovation game.

Clearly, wearable technology has proven in these pioneering businesses that it has the form and function to deliver business benefits and ROI in a unique way. Wearables should be embraced by businesses.

You snooze you lose

Innovation is an essential process and must be treated in an agile way. If businesses employ traditional requirements capture and RFP processes, by the time the project kicks off the overarching original strategy will be out of date.

Wearables offer a unique solution – remember that

Do not use wearable technology as a replacement for a Smartphone, look for unique opportunities where only wearables will provide a useable workable solution.

Failure is not an option

Just because a POC fails to deliver the business case should not be seen as a negative. The lessons learned help with business insight.

Tradition killed Woolworths

Once the business case has been proven, roll out quickly or put out a simple RFP, and qualify it as soon as possible. Delay has the potential to result in a costly failure and will leave you behind the innovation curve.

What keeps you awake at night?

When considering mobilising your business, look for the problem areas and treat as a priority, this may sound like common sense, however, it's very easy to deploy technology for technology's sake. Today some businesses are still buying expensive tablet devices as an email solution and then later realising that there is no ROI on their investment!

Swiss army watch

Due to the vast array of sensors and functionality built into Smartwatches, they bring a whole new dimension to businesses, once you have deployed your first app, repeat the process.

5. How we can help

Here at TBS, we have been involved with many ground breaking projects using wearable devices to tackle enterprise challenges. As part of this development, in conjunction with Samsung, we would like to offer you a unique opportunity to engage in a two hour practical, hands-on workshop based around wearable use cases. You will get to partake in device evaluation of Samsung wearables enabling you to identify areas of your business that could benefit from deployment.

To explore the potential of a wearable workshop at your workplace, please get in touch to discuss this opportunity further.

Contact:

Rebecca Evans
Rebecca.evans@tbsmobility.com
01773 596900

www.tbsmobility.com