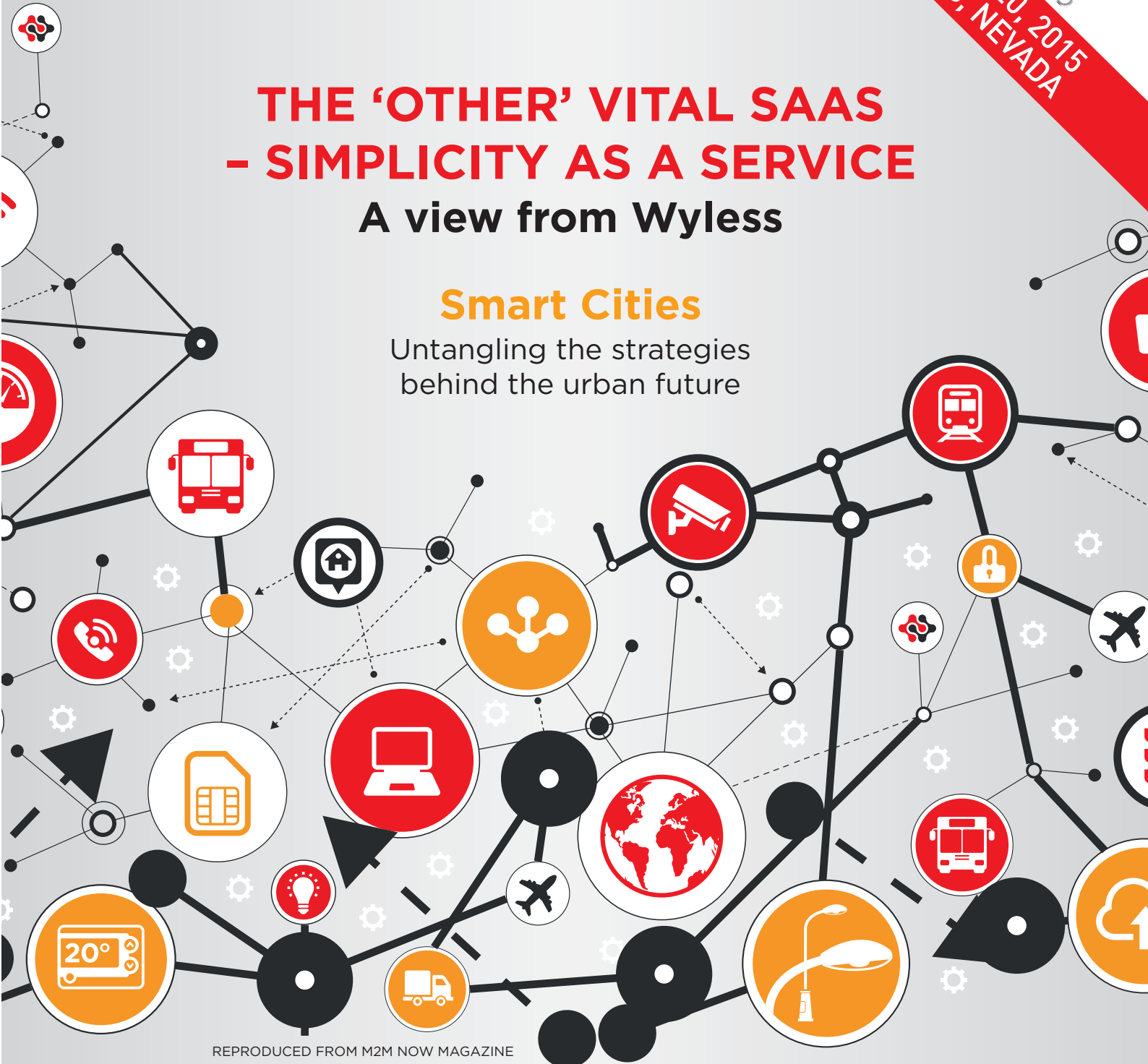# m2mnow

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THE GLOBAL IoT NEWS SOURCE

Mike Coffey,
Wyless' CEO

The 'other' vital SaaS – Simplicity as a Service

A view from Wyless

There's always a danger when you get too closely involved in any new technology movement that you can be accused of 'having drunk too deeply of the Kool Aid'. For the IoT sector of sectors – an accurate term given its huge and continually growing diversity – those early visions are now turning into commercial reality at a rate that's startling even to industry veterans. But, as we move out of that early adopter phase and begin to extend the reach and depth of IoT-supported insights, applications and business models, we ourselves need to develop new ways of doing business and new products and services if we're to help our customers achieve their own ends. ▶

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Mike Coffey joined Wyless in August of 2014 as president and COO and was later made CEO. He began his career as a technologist with hands on roles spanning software development and networks then spent the last decade in executive management roles in technology-enabled companies. His experience includes start-up to high revenue to public companies spanning SaaS, online technology, and niche business models.

The central theme driving Wyless now is making our customers' business use of IoT as simple as possible – hence my theme of 'Simplicity as a Service' in IoT

Finding ways of doing this was a recurring theme when *M2M Now*'s Alun Lewis recently sat down to talk with Mike Coffey who took on the role of president and CEO at Wyless towards the end of 2014.

M2M Now: Mike, before we go on to talk technology and your own aims and ambitions for Wyless, you mentioned the need for the IoT sector to recognise the substantial changes that were underway in the marketplace itself and adapt accordingly.

MC: Indeed. We're all familiar with the inevitable hype cycles that have infested each new technological revolution – but with the IoT we're trying to be subtly different. Yes, there is hype, but it's our collective job to try and cut through that and come up with solutions that really do solve the customer's problems in appropriate and cost-effective ways – and not just deploy technology because it's there and it's on their strategic checklist.

In this context, it's been interesting to see how the market's been settling out from our perspective over the last year or so. If you take the standard marketing pyramid, with the *Fortune 2000* at the top with mid-size companies and then SMEs underneath, it's already clear that those at the top are mostly of a size and scale to be able to implement IoT initiatives themselves - with appropriate support from various vendors and integrators.

Once you move down to second tier however and beyond, you're now talking about a vast population of enterprises who might be keen to take advantage of IoT for an equally vast set of diverse reasons, but lack the internal resources to achieve this.

To reflect this, we at Wyless have been undertaking a bit of a development effort ourselves, focusing our product development on identifying horizontal and common cross-market functionalities that all these types of company will require – down to devices and up to common application layers themselves – and then packaging our products, services and support to align with this.

What are the commonalities we find? While there's obviously the standard mix of data connectivity using different wireless technologies – including the exciting new area of Low Power Long Range, the newer variants of WiFi and LTE now emerging - as well as device support and management - plus all the other implicit aspects of an IoT platform and infrastructure that can be used in a business setting. These include some of the commonalities around IoT data – such as the common elements of the 'what happens' when an IoT device collects data – from managing messaging, awareness, events, data analytics, and even unique storage. Sometimes this is on a massive scale – and it's all about helping customers and even their customers exploit these to create better products and services and new business models. On top also obviously comes the question of pricing for different levels of support and connectivity.

The central theme driving Wyless now is making our customers' business use of IoT as simple as possible – hence my theme of 'Simplicity as a Service' in IoT. Customers in these two lower tiers don't necessarily want to know the granular details of the underlying system architectures, what radio frequencies we'll be using or what our prices are per megabyte of data shifted– they want a solution with straightforward service level agreements (SLAs) and management screens understandable by a non-expert and a service provided with transparent and predictable bills each month. And, ultimately, they want this simplicity delivered across whatever array of technologies their business requires.

M2M Now: While some of the more basic elements of connectivity are increasingly being seen as commodities, attention now is shifting much more to the helping companies use the massive data generated by IoT systems through analytic tools. How do you see this affecting your plans for Wyless?

MC: It's important here to differentiate between the internal data that we generate ourselves that keep our networks, the devices we support, our Porthos™ platform and all our back office systems operating smoothly and efficiently – and our customers' data – which they own and control. Also, it's important to note that, irrespective of whatever data we're talking, that security is front of mind for us. For example, more than 90% of our traffic flows through a private network. ▶

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IN ASSOCIATION WITH WYLESS

On the external data side, a huge variety of analytic tools and methods are available to our customers, with some specifically developed for their sectors. Our approach therefore involves making it as simple as possible to integrate incoming data with their applications through appropriate, standard and open APIs. It's important to realise though in this context that while the individual data units from devices themselves be small with a low overhead, collectively they can soon add up to startling size – and this can cause problems for some analytic tools. We can help here by advising on ways to carry out a triage process on the data transmitted, either at the device level or at a higher level in the network.

Similarly, when it comes to extracting meaningful information from that data, then context is king. If you're looking at a cardiac monitoring device that some of our customers have, for example, then some anomalies are going to set off alerts for immediate intervention, while others may stay within boundaries that just involve that data being added to patient records for the next medical appointment. And did I mention security yet? The security requirements in this patient setting are very real – think about patient privacy or the cost of calling the ambulance incorrectly for example.

This issue of occasional criticality also extends to other areas beyond health and, in turn, affects the way that we've designed our infrastructure. There have been cases recently when, after a major power outage, hundreds of thousands of smart meters supported by Wyless suddenly turned back on at the same time. Our focus on simplicity - and the managed services this entails - means that our customers who deploy smart meters are promised a seamless solution. In this case we handled the spike and underlying issues it caused on their behalf.

Delivering simplicity also means implementing innovative technologies to drive that customer simplicity. Our 2014 acquisition of ASPIDER gave us ownership of their unique M2M technology which we've been integrating and adding to. This acquisition has allowed us to proceed on an important development here — the evolution of SIMs to become open through the embedded Universal Integrated Circuit Card (eUICC) standard, allowing us to partner with carriers to enable smarter SIMS with redundancy, failover, and intelligence built to support network selection and change with no manual intervention. Through this kind of software solution, we were able to partner with a carrier, use our unique technology, and generate a €25 million total cost of ownership reduction for one major European energy utility.

The introduction of eUICC is yet another example of how software and not hardware is becoming the defining added value issue in our industry – just as has happened in numerous other convergence sectors in the last decade or two. That's why my current management 'rebooting' of Wyless is reflecting this change to a much more virtualised and distributed operating environment. This in turn brings potentially huge benefits to our customers through greatly enhanced scalability and time to market, while simultaneously protecting them from the underlying complexities.

M2M Now: You've already touched on security and there are also its close relatives – identity and

privacy – now to consider in the IoT space as well, particularly as wearables become adopted by the mass population and smart and connected devices enter our cars and homes. What are your thoughts on this area?

MC: Sadly – and I'm talking here about our entire civilisation and culture, not specifically the IoT space – people usually have to get bitten before they take personal information security seriously. Very often, if you try and flag things up, you can be accused of crying wolf. That said, security – and indeed the wider issue of trust – is an implicit part of the IoT story. The devices might seem to be working fine; the network might also seem to be fine – but can you actually trust the data that's coming into your management systems and on which major commercial decisions may be based?

Security has to be built in right from the first device, network or systems designs. That's often involved applying appropriate cryptographic techniques; securing the silicon at the lowest level from being hijacked; and helping the customer protect their data in a truly end to end way, right through into their secure clouds or databases and management systems. In an increasing number of cases, such as with the retail PoS terminals that we support for a number of customers, the proliferation of huge numbers of complex end points into possibly insecure spaces – shops, in this example – exponentially increases the exposure to risk. At least it does in theory....

The same thinking applies when we build appropriate levels of redundancy and protection into our connectivity solutions. For many of our customers – such as the PoS sector, I mentioned earlier – any failure here translates instantly into lost and unrecoverable revenue. Being able to include backhaul diversity on both wired and wireless links with near instant failover is a powerful proposition for the retail market.

With our deep understanding of how risks change in different environments and the effects of poorly synchronised technology/product lifecycles on vulnerabilities, we aim to both predict and protect. Our CTO's office, for example, has recently invested in a security function skilled in all the many aspects of both risk management and mitigation.

M2M Now: Finally, you also raised your plans for geographic expansion of the Wyless footprint. Could you expand on these?

MC: We've been very successful so far in the Americas and EMEA in a broad fashion – but those geographies themselves have plenty of room for continued expansion and also let's not forget the Asian region which is at the centre of a number of megatrends. While I won't promise a timeline for our expansion there – what we've clearly seen is a shift in almost tectonic ways around manufacturing and industrialisation as well as the population dynamics creating a demand for all sorts of new solutions in our industry. We're also seeing expansion in our international Fortune 500 customer base and as they expand we will as well. Combine that with Asian companies looking to move up the value-chain and we're keen to support them in their growth models as well – all the while, of course, keeping it as simple as possible. ■

Delivering simplicity also means implementing innovative technologies to drive that customer simplicity

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