Testimony

of

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before the

Michigan House Energy & Technology Committee

on

An Overview of the Mobile/Wireless Industry in Michigan and the Importance of Broadband to Achieving the Industry's Potential for Job Growth and Positive Economic Impact

February 19, 2013

Good morning Chairman Nesbitt and distinguished members of the Committee: My name is Linda Daichendt and I am the Executive Director of the Mobile Technology Association of Michigan (MTAM). I appreciate the opportunity to address the committee with information about Michigan's mobile / wireless technologies industry, and the importance of broadband access to utilizing these technologies to grow Michigan's economy.

MTAM is a non-profit trade association for Michigan's mobile / wireless industry. Our mission is to increase the use of Michigan-based mobile/wireless technology products and services around the state, nationally and globally; to increase the productivity and profitability of every industry vertical in Michigan via the use of these technologies; and to create sustainable jobs and increased entrepreneurial opportunities in the state based on the use of these technologies, thereby achieving substantial growth of Michigan's economy.

My goals today are as follows:

1. To provide you with an overview of the size of this industry and the economic impact it is currently having - in Michigan, nationally and globally – as well as where it is expected to go in the future
2. To enable you to understand the opportunity available for Michigan to achieve a national leadership position in these technologies
3. To enable you to understand the needs that must be met to facilitate the growth and economic benefit these technologies can provide to the state
4. To provide you with a number of recommended 'action items' that the State of Michigan can take to insure our state's ability to achieve that national leadership position.

The mobile / wireless industry is revolutionizing our lives and how we conduct business! For over 100 years companies have built silos for specific industry verticals never veering into each others 'space', but mobile / wireless technologies are changing that.

There is a well-known global concept known as 'The Internet of Things' which essentially refers to the capability of equipping all objects in the world with miniscule mobile devices that enable them to communicate with all other objects. It's important that this Committee understand the transformation this will cause in how we live our lives and run our businesses – this is a paradigm shift and it changes everything – and it's not 'if it happens' or 'it might happen', instead it's 'this is happening now and its gaining speed every day'!

I spend a significant portion of my time speaking to audiences that are curious about the growth of these technologies and believe there will be some impact on their businesses, but yet have no knowledge of the truly revolutionary impact they will have on the way we live, work and play.

However, this Committee already has a basic understanding of that, so I'm not here to convince you of it. Instead, let me just give you a few facts:

First, From a Global Perspective –

- There are currently 100 – 200 million M2M (machine-2-machine) connections today enabled by mobile technologies; we will reach 60 billion M2M connected devices by 2020. (Morgan Stanley)
    - Putting it in perspective, there are only 7 billion people in the world.
    - This particular sector of the mobile / wireless industry represents one of Michigan's best opportunities to bring Michigan manufacturing back to the forefront of the global economy – in a wide diversity of industry verticals.

In the United States –

- Wireless broadband investment will create as many as 205,000 U.S. jobs by 2015 (CTIA)
- Wireless contributions to the economy have grown faster (16%) than the rest of the economy (3%) (CTIA)

In Michigan –

- Every new mobile/wireless-related job created in the state also creates 3.9 additional jobs; only the manufacturing industry creates more jobs in Michigan (MTAM / MEDC)
- There are currently over 47,000 Michigan residents employed in mobile-related positions in over 2300 companies in the state – ranging in size from 1 – 2 person entrepreneurial firms to enterprise-level firms such as GM, Ford, Compuware and similar (MTAM / MEDC)

To understand the value being placed on these technologies by the business sector, it might interest you to know that General Electric, as an example, has stated they will be investing $100 billion in, as they call it, the 'industrial internet', that will add $15 trillion to the world GDP.

Achieving Leadership

To position Michigan to lead the revolution in the mobile / wireless space – in the U.S. and globally - investment is required in a number of areas, specifically, Infrastructure, Resources, Ideas and Marketing. Let's look at these individually for a moment:

- ***Infrastructure***
  - We must insure proper investments are made in the state's broadband infrastructure – not only for our current – but also for our future needs - a future that will be here much faster than you can imagine
  - We must foster an environment of innovation that breeds competition
  - And we must keep a balance between establishing common standards that ensure ease of integration, versus over-regulation that will stifle growth
- ***Resources***, which include Employees, Research & Collaboration and the Supply Chain. Exploring each:
  - Employees; preparing employees to work in this industry and to fill the abundance of jobs being created by it is imperative, this includes:
    - training for current employees,
    - re-training those currently unemployed,
    - and broad-based mobile/wireless-related education for the students who are our future – and for whom we must provide a lucrative technology-focused environment to encourage them to remain here
  - Research & collaboration; Another imperative is facilitating an environment of open research and collaboration that will drive innovation and investment within the state
  - Supply chain; Michigan understands more than any other state how the economy is built by feeder companies supplying a major manufacturing entity. It's no different for mobile / wireless technologies; we need to ensure a healthy supply chain from all sectors of the mobile/wireless

eco-system that will increase our ability to gain manufacturing opportunities related to these technologies.

- ***The third area of investment, Ideas***
    - The opportunities are endless in this space, but it all starts with ideas. We need to develop a central hub that touches every part of the state, every industry in the state and every educational institution in the state – that facilitates the ability to work with national and global leaders in this industry to put Michigan front and center as "the place to go" to get mobile / wireless education, to get cutting edge companies, and a state that is prepared to foster those relationships.
- ***And last but not least, Marketing***
    - All of this investment, collaboration and innovation does nothing for us if we don't tell anyone about it. We need to market to the world that Michigan understands the mobile / wireless technology revolution, that we have made the proper investments in our infrastructure and our educational institutions, and that this is where they need to be.

What are the Challenges?

- First, Michigan has a very limited 'window of opportunity' to implement a multi-discipline vs. technology-company -only focused mobile/wireless statewide strategy, and to secure a national leadership position in particular sectors of the mobile/wireless technologies industry that are not currently being heavily pursued by other states. These sectors happen to be areas where Michigan has existing resources and areas of strength that provide substantial advantages. WE NEED TO INSURE WE TAKE ADVANTAGE OF THIS 'WINDOW OF OPPORTUNITY' BEFORE ANOTHER STATE DOES.
- Another challenge is that securing this leadership position requires a central resource coordinating the efforts of our government, education, and business verticals to facilitate their ability to work together, alongside national and global industry resources to grow this industry in Michigan; we see MTAM in that central resource role.
- Lastly, this effort needs a 'home', a Mobile/Wireless Technology Collaboration & Innovation Center that works with all the technology incubators throughout the state and where:
    - industry verticals can work together and yet still maintain their own secure environments,
    - educational institutions can work with industry to provide 'real-world' learning experiences for students – the employees of the future,
    - national and international firms can come to work with Michigan-based firms to take advantage of Michigan's industry-leading capabilities,
    - and Michigan-based firms can have access to joint resources that they would be unable to access on their own.

Regarding this Collaboration Center, there is an existing Michigan-based firm who is already employing this concept on a much smaller scale for a single global industry. This project provides a very useful proof-of-concept in that their project has already achieved participation commitments from national and global firms in the mobile/wireless industry, as well as the national and global vendors with which their industry regularly conducts business. Should you have interest in speaking with this organization about the specifics, I would be happy to arrange it.

To make this happen, we have a series of Recommendations:

- A sub-committee
  - First, while MTAM has initiated the process of bringing together the business community, local municipalities and state government organizations, and our educational institutions at all levels, we feel it is necessary to obtain more support at the state level to identify programs, funding opportunities, existing resources, and statewide mandates that may be utilized to insure we are able to take advantage of this immediate opportunity
- Mandates
  - Second, we recommend the implementation of a mandate for the MEDC to make growth of the mobile/wireless industry a priority for the state, and to require the allocation of its resources accordingly
  - Last, we strongly suggest a mandate that our higher education institutions incorporate mobile / wireless-related coursework into every industry major; from healthcare, to manufacturing, to advertising and communications, to computer science and engineering and beyond. Every student leaving a Michigan institution of higher education needs to understand how these technologies will impact their chosen field.

The bottom line is, the future is here now. The decisions made now, and actions we take now, will define our future and will determine whether Michigan is once again known as a global leader in an industry that impacts every other industry on earth, or whether we are left behind to wallow in our past glory. Time is rapidly running out to secure that leadership position so I strongly encourage this Committee to do what is necessary to ensure that Michigan makes the proper investments, and builds the necessary resources, to allow us to capitalize on this once-in-a-lifetime opportunity.

Thank you for your time and interest, I look forward to your questions, and should there be interest in learning more about these technologies or the information presented here today, I would welcome the opportunity to meet with you individually. We have also provided additional information in your packages that you may refer to.

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The Mobile/Wireless Industry and the "Internet of Things"

This industry and its innovations are revolutionizing our lives and how we conduct business. We will see 60 billion objects connected by 2020 through machine-to-machine (M2M) wireless communication. This is driving companies and governments to invest significantly in this industry, such as General Electric's stated $100B investment in what they are calling the "industrial internet" that will add $15T to the world GDP. For Michigan, this means JOBS – where every mobile/wireless-related job in Michigan creates an additional 3.9 additional jobs.

Achieving Leadership

Michigan can LEAD in this revolution by being the first state to implement a strategy that is not focused only on technology-based companies but rather on facilitating all companies to grow by leveraging mobile/wireless technologies. This strategy should focus on investing in the following areas:

- **Infrastructure** – a strong broadband infrastructure is the base upon which Michigan companies can grow and this investment should breed competition and common standards rather than over-regulation.
- **Resources** – the demand for qualified human resources will skyrocket and Michigan can secure a distinct advantage by organizing programs that train our current workforce and prepare students in all disciplines to understand how mobile technologies can impact their chosen field.
- **Ideas** – Michigan must proactively facilitate open collaboration among companies, educational institutions and government in order to lead in generating ideas, innovations that will grow our companies.
- **Marketing** – to achieve a leadership position, Michigan must market our capabilities, resources and investments to the world, inviting all progressive companies to come here to participate and grow with us.

Challenges

- **Limited Window of Opportunity** – many are targeting a leadership position in this space and the leaders will begin to emerge within months
- **Central Resource Needed** – aligning business, government and education to work together is not a simple proposition – this is MTAM's mission.
- **This Effort Needs a "Home"** – developing programs and facilitating collaboration is key. MTAM's plans for Mobile Technology Innovation Center would play a key role in executing strategic plans.

Recommendations

- **Sub-committee** – ensure state-level support to identify programs, funding opportunities, resources and statewide mandates that positions Michigan to seize this opportunity
- **Mandates**
    - MEDC to make growth of the mobile/wireless industry a priority for the state and require allocation of resources accordingly.
    - Higher Education Institutions to incorporate mobile technology education across all curriculums.

The Mobile / Wireless Industry Today and Tomorrow

From a Global Perspective –

- In 2010 the value of the mobile / wireless industry surpassed $1 Trillion for the first time; of note, only 3 other global industries achieve that level of revenue (food, automotive, defense) (Tomi Ahonen, mobile industry expert)
- There are currently 100 – 200 million M2M (machine-2-machine) connections today; we will reach 60 billion M2M connected devices by 2020. (Morgan Stanley) Putting it in perspective, there are only 7 billion people in the world. This particular sector of the mobile / wireless industry represents one of Michigan's best opportunities to bring Michigan manufacturing back to the forefront of the global economy – in a wide diversity of industry verticals.
- The worldwide smart grid market will grow from $20 billion in 2010 to $100 billion by 2030 (Morgan Stanley)
- To understand the value being placed on these technologies by the business sector, it might interest you to know that General Electric has stated they will be investing $100 billion in, as they call it, the 'industrial internet', that will add $15 trillion to the world GDP

In the United States –

- Wireless broadband investment will create as many as 205,000 U.S. jobs by 2015 (CTIA)
- Wireless economic contributions to the economy have grown faster (16%) than the rest of the economy (3%) (CTIA)
- U.S. 4G wireless network investments will be between $25 - $53 billion by 2016; resulting in up to $151 billion in GDP growth and up to 771,000 jobs being created (CTIA)
- The U.S. has exceeded 100% mobile subscriber market penetration; 315 million U.S. citizens, 327 million mobile device subscriptions – and it will continue to grow
- As the largest percentage of the U.S. population, the Baby Boomers, continues to age, mobile technologies will play an increasing role in providing affordable access to better healthcare, and in fact, 40% of physicians indicate they could eliminate up to 30% of office visits thru use of mobile health strategies resulting on lower healthcare costs and better treatment

In Michigan –

- Every new mobile/wireless-related job in the state also creates 3.9 additional jobs; only manufacturing creates more jobs in Michigan (MTAM / MEDC)
- There are currently over 47,000 Michigan residents employed in mobile-related positions in over 2300 companies in the state – from 1 – 2 person entrepreneurial firms to enterprise-level firms such as GM, Ford, Compuware and similar (MTAM / MEDC)
- Average compensation for a mobile/wireless-related position in Michigan is over $63,000 annually (a cost-of-living equivalent to a Silicon Valley salary of $145,000) (MTAM / MEDC)
- Michigan is the Global Leader in the Telematics sector of the mobile / wireless industry (CTIA)
- Michigan's top 5 mobile development companies alone – of which there are hundreds – (ranked by aggregate app downloads) are responsible for over 30 million mobile app downloads (Crain's Detroit)

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WHO IS MTAM?

(Mobile Technology Association of Michigan)

MTAM is a non-profit trade association for Michigan's mobile / wireless industry. We are the only state-based mobile/wireless industry trade association in the U.S., and our mission is to increase the use of Michigan-based mobile/wireless technology products and services around the state, nationally and globally; to increase the productivity and profitability of every industry vertical in Michigan via the use of these technologies; and to create sustainable jobs and increased entrepreneurial opportunities in the state based on the use of these technologies, thereby achieving substantial growth of Michigan's economy.

We are also the statewide producer of Mobile Monday Michigan – a mobile / wireless industry networking and education organization which is a branch of an international organization based in Finland. Here in Michigan we currently have 4 chapters (Detroit, Ann Arbor, Lansing and Grand Rapids) with over 2300 members statewide, and additional chapters in the planning stages for 2013.

The Members of our Board of Directors:

- Linda Daichendt, CEO/Executive Director, **Mobile Technology Association of Michigan** and Co-founder, **Mobile Monday Michigan**
- Cynthia Grubbs, Small Business Liaison, **Michigan Economic Development Corporation**
- J.D.Collins, Director of Web Innovation, **Spectrum Health Systems**
- Bob Kennedy, Vice-president of Strategic Services, **Compuware**
- Scott Wruble, Vice-president of Information Technology, **Palace Sports & Entertainment**
- Jonathan Engelsma, Associate Professor, School of Computer Science and Information Systems, **Grand Valley State University** and Director, **GVSU Mobile Applications and Services Lab**
- Robert Kamal, CEO, **KoHorts IT Services** and Board Member, **Michigan Technology Network**
- Jeff Hipchen, Executive Vice-president, **RF Connect**
- Elaina Farnsworth, CEO, **Mobile Comply**
- Glen Konopaskie, Co-founder/President, **Future Help Designs**

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