

Agenda for Face to Face meeting

Napa Valley, CA USA

8-11 June, 2016

7 June, 2016

1400 – 2200 Board Member Meeting (Closed meeting)

8 June, 2016

0900 Welcome and Introductions

Steve Halliday (President)

Host introduction

Enu Waktola Smartrac,
xxx, Google.

Anti-trust and Collaboration Policy (see below)

Working Group Meetings (breakout) – 1

- Marketing
- Smart Product and Packaging
- Solutions

12:30 Lunch

13:30 Working Group Meetings (breakout) - 2

- Developers
- Marketing – Sub Teams
 - Retail
 - Healthcare
 - Mfg & Logistics
 - IoT

1700 Break for the day

1800 Dinner

9 June, 2016 am

0830 Welcome

State of the Alliance

Steve Halliday

Working Group reports (15 mins each).

- Marketing/Education
- Developers Forum
- Solutions
- Smart Packaging
- Healthcare
- Retail
- Mfg & Logistics
- IoT

Kerry Krause
Lars Thuring
Ralf Kodritsch/Matt Robshaw
Maurizio Turri
Paul Elizondo
Rich Marshall
Doug Bourque
Markus Rumpf/Jeremy
Schenof

Member Presentations

- TagMaster AB
- GS 1

- Omni-ID
- FEIG
- Primo 1D
- 7iD
- Thingmagic

Mattias Edlund
Craig Alan Repec, Sr. Manager
of Supply Chain Visibility
Jack Lewis
Klaus Schoeke
Emmanuel Arene CEO
Markus Rumpf
Debbie Power

1200 Lunch

Marketing

Kerry Krause

Technical Discussions:

Steve Halliday

Discussion on current and next work

Steve Halliday

Next Meeting

Steve Halliday

Any other Business

Close of Member Meeting

9 June, 2016 pm

1200 Lunch

1300 presentations

1300 Key Note address – *Digitizing everyday things for the IoT* – Christian Uhl, CEO SMARTRAC

SMARTRAC is proud to be a Founding Member of the RAIN Alliance established in April 2014 together with Google, Intel and Impinj. The RAIN Alliance was then established with a bold vision to connect 28 billion 'things' in 2020, and to bridging the essential links required for an Internet of Things (IoT) ecosystem. Today, the RAIN Alliance successfully represents more than 110 companies globally and is poised to speed up dramatically the development and implementation of RAIN RFID for an Internet of Things ecosystem. While digitizing everyday things for the IoT begins with first making everyday objects 'smart' through application of RAIN RFID tags, the important value add lies in analyzing the profile and category of the smart enabled objects, the application metrics around data analytics, and ultimately the utilization for value creation to end users in both industrial and consumer applications of RAIN RFID.

1345 Key Note address – *Pushing and Analyzing real-time RAIN data in the Cloud* – Colin Bookman, Google for Work

Google organizes the world's information and makes it universally accessible and useful. Now that more of the physical world's information is dispersed across billions of RAIN RFID tags, analysing this "small data" to extract useful insights quickly becomes a big data problem. In this presentation I'll be going over the methods in which my team has been generating valuable knowledge from real-time RAIN RFID data, and how Google's public cloud offerings have helped us overcome many of these challenges.

1430 *From RFID to IoT – Bridging the last 10 meters* – C. Paul Slaby, Vytas Kezys – Teslonix

The vision of connecting billions and billions of electronic devices at the edge of the IoT network is facing a practical problem: how do we power, locate, and communicate with all these devices and get the data up to the Cloud?

There is a need for an Internet of Things device connectivity platform and infrastructure enabling efficient and affordable linking of billions of “things” interfacing the physical world around us to the Internet all while taking care of power, secure communications and location. Building upon the UHF RFID standard and the associated industry eco-system could be a practical way of making scalable IoT deployments possible by achieving active node functionality using more affordable passive electronic devices.

1510 Break

1540 *Digitally Connected RAIN Embedded Solutions for IoT* – Eric Wood, Vice President Product Management, Printed Electronics, RR Donnelley

Leveraging RAIN for the Internet of Things goes beyond the basic need for data and connectivity – companies must take advantage of the information they gather to make intelligent, insightful decisions and drive real value. This session will focus on ways to incorporate RAIN solutions across a variety of use cases that bring value to applications ranging from manufacturing to shopper engagement in form factors such as smart packaging, branded labeling, and embedded RAIN technology, and will lead you to rethink the "I" in IOT.

1620 *Real-Time Item-Level Visibility and Analytics* – Stacey Shulman, VP Global Technology, Levi Strauss & Co.,

1700 Close of Meeting/Visit to Levi Strauss Store

10 JUNE, 2016 – MORNING – OPEN SESSION 2 (ALL INVITED)

0830 Welcome back

Continue speaker sessions

RAIN RFID in Healthcare: A Prescription for Improved Medication Safety, Reduced Costs and Increased Efficiency – Mr. Shariq Hussain, President and CEO, MEPS Real-Time, Inc.,

You will hear how RAIN RFID is being used to manage pharmaceutical inventory and enable safe and accurate drug distribution within hospitals and health systems. A background of the challenges of pharmaceutical inventory management in healthcare will be described, the

Intelliguard RFID ecosystem and how RAIN RFID is embodied within it will be outlined, and you'll get a sneak peek at the next revolution in operating room inventory optimization using RAIN RFID.

0905 RFID Scan Engine effectiveness in IOT communications – Doug Lautner, Senior Director of Software Research, Motorola Mobility,

RFID technology provides an efficient wireless data exchange path connecting various types of devices. These electronics cover a wide spectrum from capable devices, such as mobile phones, TVs, tablets, PCs, to small accessories, such as headsets, heart rate monitors and even energy-efficient RFID based sensors. As a result, RFID discovery or scanning becomes a common routine to detect the surrounding devices or services of interest. Some applications such as indoor location detection demand a high frequency of RFID scanning of nearby RFID tags to get the accurate runtime location information. From this perspective, RFID scanning itself is like a virtual sensor that is able to continually collect contextual neighbour signals/information in a fixed frequency . In this presentation, a new approach of treating RFID as a low power sensor in a mobile platform to capture its sensing nature is explored. To fundamentally support the approach with low energy cost, a dual stack RFID sensing structure in an Android platform is discussed. Building upon the dual RFID stack structure, we'll also investigate a low energy sensing algorithm to optimize sensing duty cycles based on contextual information monitored in a low power sensor fusion core.

0940 Security Concerns and Applications for the Internet of Things – Paul Philip: Trust Mechanisms Research- US Department of Defense

The Internet of Things (IoT) is rapidly becoming a reality. As is historically true of emerging technology, security is often slighted in manufacturers' rush to acquire market share.

Additionally, IoT devices and core processing platforms are often resource-constrained, making security and trust design a challenge. In light of this situation, this briefing will present DoD areas of security concern and trust mechanism research focus areas. Additionally, the Trust Mechanisms IoT team is partnering with a major US manufacturer for the Research and

Development of an IoT security application, the Smart Office Wearable Device. The device offers a solution for people who hate passwords and organizations who hate managing them to provide a frictionless, secure log-on experience with location-related benefits. Related operational and security issues will be discussed and some of the ongoing investigations that can possibly take advantage of RAIN RFID will be presented-discussed.

1015 Break

1045 "Enabling RAIN for the IoT" Panel Session – moderated by Shahrokh Shahidzadeh, Senior Principal Technologist at Intel's IOT Analytics Solution, **Intel**. Speakers from 9 and 10 June RAIN and IoT presentations (including **DoD, Google, Levi Strauss & Co., Motorola Mobility, MEPS Real-Time, RR Donnelley, SMARTRAC, and Teslonix**) will participate in the panel facilitating open dialogue and interactive discussion for all attendees.

1200 Close of Meeting