Advancing interoperable personal connected health

Michael Strübin, European Programme Director
Informatiebeheer Meet Up, Den Haag
26 June 2017
More than a standard...
Personal Connected Health Alliance

A nonprofit membership association transforming healthcare through personalized, interoperable connected health solutions.

• Founded 2006 (as “Continua Health Alliance”)
About personal connected health (Continua market segmentation, circa 2010)

Independent living
  AAL
  Active ageing
  Healthy longevity

Wellness
  Fitness
  Quantified self

Chronic conditions management
  Remote monitoring
  Personalized health
Personal Connected Health Alliance

A nonprofit membership association transforming healthcare through personalized, interoperable connected health solutions.

- Founded 2006 (“Continua Health Alliance”)
- Brings together industry and users
- Works from use cases, creates “profiles”
- Takes existing standards, makes them fit for purpose
- Maintains & annually publishes the *Continua Design Guidelines*
- **Certification** program facilitates consistent implementation
- Since 2013 recognised as ITU Standard (ITU Recommendation ITU-T H.810)
Continua Guidelines for personal health interoperability
More than a standard...
About IHE and PCHAlliance
Leaders in eHealth Interoperability

Working together towards interoperability for healthcare

Feb 2017
About IHE and PCHAlliance

Integrating the Healthcare Enterprise (IHE) and Personal Connected Health Alliance (PCHAlliance) are each focused on improving the ways health IT systems share information.

IHE’s primary domain is in clinical healthcare settings and their regional/national/cross-border exchanges while PCHAlliance’s primary domain is in home and remote health settings.

IHE Profiles and PCHAlliance’s Continua Design Guidelines are both standard-based, open specifications for health information exchange:
- Where they overlap they are consistent, resulting in a mature and interoperable information ecosystem
- Together they ensure that device data whether captured by the patient or in a care delivery setting flows into electronic health records in the same format and coded content

Together, both IHE and PCHAlliance continually improve interoperability within their domains and oversee conformity testing and certification of products worldwide.
Where to deploy IHE Profiles and PCHAlliance’s Continua Guidelines

Defined in IHE Profiles
Defined in Continua Guidelines
Defined & aligned in both Continua Guidelines & IHE Profiles
Continua Guidelines for personal health interoperability
How We Are Leading Together (3 pronged plan)

- **Collaborating on future Profiles and Guidelines development.**
  - Coordinating work programs between the two organizations
  - Enabling seamless integration between products using IHE Profiles and the Continua Design Guidelines to ensure the combined deployment of fully interoperable systems.

- **Collaborating with each other’s conformity testing and certification programs.**
  - Aligning tools and processes.

- **Collaborating on Communication, Education, and Product Interoperability Demonstrations.**
  - Eliminating confusion among providers, vendors, and standards bodies about both organizations’ standards and tools.
More than a standard...
About IHE and PCHAlliance
Towards adoption
Standards adoption in personal connected health

**Consumer technology**
- Fast innovation
- Quick product life cycles
- Light regulation
- Marketing to consumers

**Medical technology**
- Focus on patient safety
- Long life cycles
- Considerable regulation
- Sale to providers, HCPs

Source: IBM Institute for Business Value
Risk: misaligned incentives

Lack of demand for interoperable devices

(Public) buyers cannot require standards compliance

Fewer interoperable devices available
Future: aligned incentives

- **MORE** demand for interoperable devices
- (Public) buyers cannot require standards compliance
- Fewer interoperable devices available
Future: aligned incentives

MORE demand for interoperable devices

(Public) buyers cannot require standards compliance

MORE interoperable devices available
Future: aligned incentives

MORE demand for interoperable devices

(Public) buyers can and will require standards compliance

MORE interoperable devices available
Working towards a demand push in Europe

**Norway:** (Dec. 2014) Parliament adopted Continua standards as the framework for new national health program

**Sweden:** (April 2016) announced open architecture based on Continua Guidelines

**Denmark:** (2012) Nationwide health IT strategy sets out reliance on interoperability standards (Continua).

**European Commission:** (2013) Continua referenced alongside IHE in European eHealth Interoperability Framework

**Switzerland:** (March 2017) eHealth Suisse published mHealth recommendations

**Finland:** (June 2016) signed letter to the eHealth Network calling for European interoperability framework

**eHealth Network:** (May 2017) Invited six governments to present at Malta meeting

**Austria:** (Summer 2017) Ministry of Health to release framework directive for telehealth
More than a standard...
About IHE and PCHAlliance
Towards adoption
PCHAlliance’s ecosystem
Founding members (2006)

- BodyMedia
- Cisco Systems
- GE Healthcare
- IBM
- Intel
- Kaiser Permanente
- Medtronic
- Motorola
- Nonin Medical
- Omron Healthcare
- Panasonic
- Partners HealthCare
- Polar Electro
- Royal Philips Electronics
- RMD Networks
- Samsung Electronics
- Sharp
- The Tunstall Group
- Welch Allyn
- Zensys
PCHAlliance Global and Strategic Members

... and more than 60 other companies from all over the world
Introduction to ResMed

Brad Templeton
Senior Manager, Healthcare Informatics Business Unit, EMEA & JPN
ResMed - Global Leader in Managing Sleep Apnea & COPD

27+ years of successful innovation, market development and market growth

Leader in innovation for products in sleep apnea, COPD, NMD and other chronic diseases with greater than 5,000 patents and designs

Global sales and manufacturing channel, delivering products and solutions in over 100 countries with over 5,000 employees world-wide
Global Leader in Sleep Apnea Management

AirSense™ 10

AirFit™ N10

AirFit™ P10

AirFit™ F10

myAir™

AirView™
Full spectrum of products for Respiratory Care

- Bilevel
  - AirCurve 10

- Non-Invasive Ventilation (NIV)
  - Lumis™
  - Stellar™

- High-Flow Therapy (HFT)
  - AcuCare™ high flow nasal cannula

- Life Support Ventilation
  - Astral™
  - Astral™ with RCM

- Portable Oxygen Concentrator
  - Activox™
Empowering patients to track health outcomes
Global leader in connected care for medical devices

**AirView™** has over 5 million+ patients

3 million+ patients monitored at **home** with **connected care**

200,000+ diagnostic tests processed **in the cloud**

45 million+ patient accounts via Brightree post-acute care network

24 API calls **per second** from integrators

1,000+ patients a day sign up for **myAir™**
Interoperability & Security

- Represented on the PCHA board of managers with strong commitment to this important initiative and interoperability.
- Active participation in the standards community, with staff directly engaged in the authoring of standards -IEEE/ISO.
- Continua-guideline device data is currently available via ResMed’s securely hosted service – AirView.
- Data can be securely exchanged with hospital systems or other healthcare platforms via AirView, offering performance; scale and security.
- AirView was built to comply with EU 95/46/EC and other global privacy healthcare regulations, including EU privacy legislation, HIPAA.
- AirView is hosted at a specialist healthcare data hosting provider with the French health authority's ASIP Santé certification.
Thank you
## RENESAS COMPANY PROFILE

### MAJOR OPERATIONS
- **Research**
- **Development**
- **Design**
- **Manufacture**
- **Sale and servicing**

of *semiconductor products*

### REPRESENTATIVES
- **Tetsuya Tsurumaru**
  - Representative Director, Chairman
- **Bunsei Kure**
  - Representative Director, President and CEO

### KEY FIGURES
- **Capital Stock**: **10.0 billion yen**
- **Sales**: **471.0 billion yen** (*1)
- **Employees**: **18,884** (*2)

*1 Fiscal year ended December 31, 2016 (Results for 9 months cumulative due to the change of the fiscal term)
*2 Consolidated, as of December 31, 2016

### BASIC INFORMATION
**Renesas Electronics Corporation**
- Established on November 1, 2002 as NEC Electronics Corporation.
- (Started operations on April 1, 2010 as Renesas Electronics Corporation)

**TOYOSU FORESIA 3-2-24, Toyosu, Koto-ku, Tokyo 135-0061 Japan**
- Tokyo Stock Exchange, First Section
  (Since July 24, 2003, TSE:6723)
- www.renesas.com
RENESAS MARKET POSITION

No. 1 microcontroller (MCU) supplier in the world with 22.5%; that’s double the market share of Renesas’ closest competitors (Freescale 11.2%)

No. 1 in both the Automotive and Industrial product categories, the two largest categories in the global MCU market (58% of the whole market)

Source: Gartner, “Market Share Analysis: Microcontrollers, Worldwide, 2014” 08 May 2015 Chart created by Renesas Based on Gartner data
* “Data processing” includes “Computer” and “Storage”. “Communication” includes “Wired communication” and “Wireless Communication”. “Industrial” includes Industrial/Medical/Others.
RENESAS AND PARTNERS OFFER FULL CONTINUA CLOUD PLATFORM
PCHA TARGETS ARE IN SYNC WITH RENESAS' OWN CORPORATE MISSION

- Open specifications create **trust**, lower barriers to entry and drive **innovative** solutions
- **Interoperability** is a key requirement to the adoption of a technology
- **Connectivity** as a tool to enhance people's lives and improve their health
- **Alliances** as drivers of progress are key to support Renesas' own customers and in consequence end users
More than a standard...
About IHE and PCHAlliance
Towards adoption
PCHAlliance’s ecosystem
How will it benefit the Netherlands
Meer grip op je eigen gezondheidsgegevens

Een leven lang wordt op allerlei plekken informatie over uw gezondheid opgeslagen. In het ziekenhuis, bij uw consultatiebureau, uw gemeente, uw schools en ga zo maar door. Al deze gegevens gaan over u, maar u kunt er zelf niet zo maar bij.


‘Het zou mij een hoop werk schelen.’
Organisatie


Programmaadres MedMij
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Informatiebureau

MedMij
NLK HER
Interoperability delivers long-term efficiency

- Standards enable competition, build level playing field and ecosystem for SMEs
- Patients and citizens have flexibility and choice
- Medmij platform will be robust and future-proof
Thank You!

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www.pchalliance.org