Continua Health Alliance: 
*The Next Generation of Personal Telehealth is Here!*

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A non-profit, open industry alliance of the finest healthcare and technology companies in the world joining together in collaboration to improve the quality of personal healthcare
The Challenge & The Opportunity

• Worldwide today:
  • 1 billion adults overweight
  • 860 million chronic disease patients
  • 600 million elders age 60 or older

• 75-85% of healthcare spending is on chronic disease management

Source: World Health Organization; McKinsey
Promoters
Over 165 Member Companies!

New Members Since June!
“Our Mission is to establish an eco-system of interoperable personal health systems that empower people & organizations to better manage their health and wellness”
Disease Management

860 million chronic disease patients worldwide

Disease Management
- Vital sign monitoring (Remote Patient Monitoring)
- Medication reminders and compliance
- Utilize home network to locate devices in logical places:
  - Scale in bathroom
  - Pill minder in kitchen
  - Blood Pressure cuff in living room
- Trend analysis and alerts
- Email, chat, video
- Appointment scheduling

Continua member companies help people with chronic conditions live healthier lives by connecting them to their care team through a more efficient exchange of personal health information.
9/1/2008

Bonnie

Nursing Bag

ID Badge

Coagulometer

Point of Care Device (Laptop)

Glucometer

Pulse Oximeter

Sphygmomanometer (Blood Pressure Cuff)

Trunk Box of Medical Supplies

Instant Camera (missing: Digital Camera)

Pager

Weight Scale (missing: Baby Scale)

Telemonitor

Ultrasound

Video Conferencing Equipment

Cell Phone

Stethoscope

Glucometer

Coagulometer

Instant Camera

Pager

Trunk Box of Medical Supplies

Instant Camera

Sphygmomanometer (Blood Pressure Cuff)
Aging Independently

- Independent living
- Chronic disease

Aging Independently
- An adult child helping their elderly parents age gracefully in their own home
- Basic life monitoring as appropriate (ADL):
  - Bed pressure (sleep)
  - Bathroom sensor
  - Gas / water sensor
  - Emergency sensor
- Vital sign monitoring (RPM)
- Medication reminders and compliance
- Trend analysis and alerts
- Email, chat, video
- Appointment scheduling

Continua member companies help the elderly age independently, with dignity and security, through the efficient exchange of personal health and safety information that connects them to their family and care team.
Health & Wellness

One billion adults overweight worldwide

Health & Wellness

- Weight loss
- Fitness
- “Worried Well” vital sign monitoring:
  - Weight
  - Blood pressure
  - Glucose
  - Cholesterol
  - Activity level
- Personal Health Records
- Appointment scheduling

In the future...

- Extension of healthcare system into the home
- Initial triage of non-emergency conditions
  - Vital signs
  - Images
  - Email / chat / video

Continua member companies help people live healthier, more active lives by connecting them to their health and wellness team through a more efficient exchange of their personal fitness information.
• **GUIDELINES:**
Continua member companies will select connectivity standards and publish Guidelines for strict interoperability.

• **CERTIFICATION & LOGO:**
Continua will establish a certification program with a consumer recognizable logo signifying the promise of interoperability with other certified products.
PRODUCT PACKAGING

ELECTRONIC MEDIA / SOFTWARE

PRODUCT SUBSTRATES

PRODUCT APPLICATIONS
WiFi Alliance - Successful Example

- **Logo**
- **Test & Certification**
- **Plugfest**
- **Guidelines - e.g., Setup, Security**
- **Industry Standard IEEE 802.11x**

- **Logo**
- **Test & Certification**
- **Plugfest**
- **Guidelines**
- **Industry Standards**
Version One Device Connectivity Standards

- ISO/IEEE 11073-10404 = Pulse Oximeter
- ISO/IEEE 11073-10406 = Pulse / Heart Rate
- ISO/IEEE 11073-10407 = Blood Pressure
- ISO/IEEE 11073-10408 = Thermometer
- ISO/IEEE 11073-10415 = Weighing Scale
- ISO/IEEE 11073-10417 = Glucose
- ISO/IEEE 11073-10441 = Cardiovascular Fitness Monitor
- ISO/IEEE 11073-10442 = Strength Fitness Equipment
- ISO/IEEE 11073-10471 = Independent Living Activity
- ISO/IEEE 11073-10472 = Medication Monitor

Bluetooth Medical Device Profile Specification

USB Personal Healthcare Device Class Specification
Disease Management Service Provider

Disease management nurse or home care nurse

Remote Patient Monitoring (RPM) Server

Continua xHR Interface (Data, Message, Security)

Healthcare Provider

Electronica Health Record System

Labs

Patient

Vital Sign Devices

Home based Remote Patient Monitoring (RPM) System

EHR
Free Reference Source Code

- Continua has roughly 500 modules of member written source code already available in our library...downloaded by dozens of companies.

- We are paying contractors to write the rest. Planning on $1M in 2008...add more code to the library each year.

- Reference code only - use at your own risk (disclaimer)

- Generic reference platform- not optimized for a specific device:
  - Operating System: Windows XP
  - Hardware: X86-based
  - Language: C/C++

- Implement mandatory features of guidelines

- Structured as Library of modules w/ API

Save $500-600K on product development!
Pre-product components arrive!

• **Groundbreaking platform allows medical devices to communicate wirelessly**

• US$5 platform lets consumers effortlessly monitor health at home

• Cambridge Consultants today announced the first demonstration of the emerging industry standards for medical device interoperability. The ‘Vena’ platform is a breakthrough software solution on a single chip that allows medical devices such as blood pressure monitors to transmit data wirelessly. The development gives consumers, especially those with chronic conditions, the ability to monitor their own health accurately, systematically and independently. This platform uses low-cost wireless technology and will allow devices to deliver medical readings to a central monitor located in the home, or even to an online health record such as Google Health or Microsoft Health Vault. The Vena software solution can be added to a medical device using hardware with a potential cost of less than US $10 at the appropriate volumes and could even be available in medical devices by the end of 2008.

• For the first time, the Vena platform embeds both the emerging IEEE11073 standard, which ensures compatibility of data exchanged between different types of devices, and the emerging Bluetooth Medical Device Profile, optimised for the secure transport of medical data, onto the single chip. Successfully concept tested with a pulse oximeter and weighing scales, the platform will be expanded to include other types of devices including blood pressure monitors. The platform is also capable of delivering a complete display, which means that device manufacturers now simply need to add their sensor of choice and the device is wireless-ready.
Working Group Structure

Over 1,400 members participating in the various Working Groups
2008 / 2009 Roadmap

**TWG**
- V1 Guideline development
- Draft Guidelines
- V2 Coordinate with UCWG

**TCWG**
- Test Tool Development
- Early Device Certification
- Establish Test Lab
- Test Tool RFP
- Test Lab RFP
- VASC Release 1
- VASC Release 2
- VASC Release 3

**UCWG**
- Phase 2 Use Case Refinement with TWG
- Use Case Demo
- Refining Long Term Use Cases

**F2F Mtgs**
- Q2 '08: 14
- Q3 '08: 10
- Q4 '08: 29
- Q1 '09: 14
- Q2 '09: 25
- Q3 '09: 24
- Q4 '09: 8
2008 / 2009 Roadmap

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HR WG

Global Policy WG

RWG

MWG

Future State Paper Available

Pilot specification, pilot specification, and Exec. Presentation

US Advocacy Day

US Policy Environment Paper

EU Advocacy Day

EU Advocacy Day

Submit standards to FDA

Finalizing FDA Paper

Regulatory Panel

Product Showcase Dev.

Web site Revamp / Consumer Site

MKTG Plan Dev.

2009 MKTG Plan

IMHS

Partners Symposium

CES

Healthcare Unbound

HIC

Medica

CES

9/1/2008
Building awareness around the world...

- Continua sponsored public Symposiums & member Summits

2009: Tokyo, Spain, Vancôouver, Boston
Continua has received numerous inquiries from members and non-members requesting help in finding appropriate vendors for new health and chronic disease management programs.

**The Continua Matchmaking Program:**

- Help healthcare providers find world class vendors who are developing the next generation of personal telehealth devices and services.

- Come to our website, fill out a simple RFP-like form and submit it. Our Continua vendor community will receive notification and contact you.

- [http://www.continuaalliance.org/match_program/](http://www.continuaalliance.org/match_program/)
Come see us in our booth! Thank you!

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www.continuaalliance.org