

Hospital@Home -Programs and strategy

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Section for Method Development and Industry Collaboration



The Intervention Centre - Clinical Test Facility at Oslo University Hospital

The Intervention Center



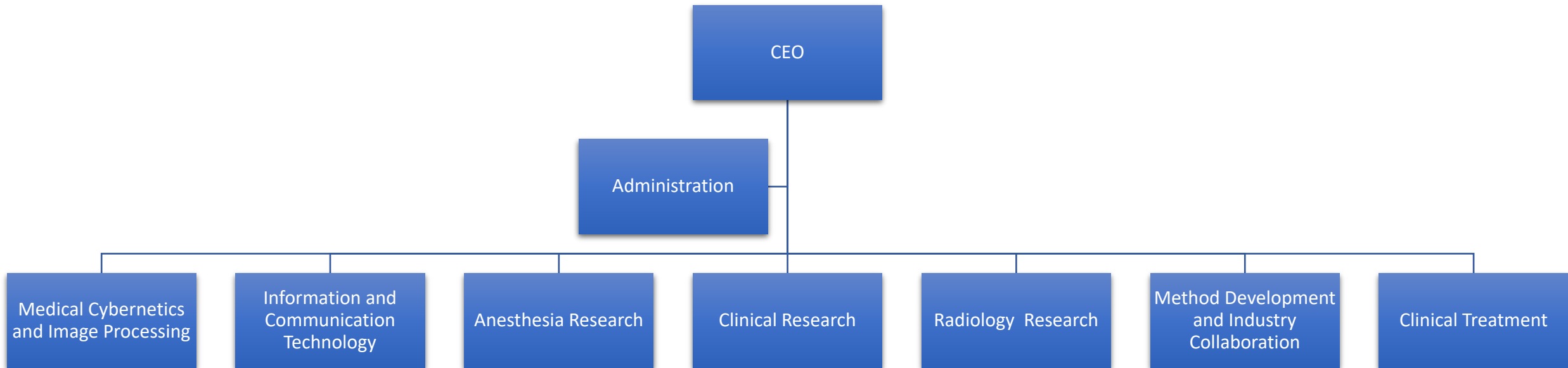
Mandate:

- Established in 1996 to introduce advanced technologies in medicine
 - Safe introduction of new technologies for the benefit of patients
- Department for Clinical Research and Development
- Image guided and minimally invasive therapies
- Support industry Collaboration:
- Non-production based funding

1. Cross Disciplinary Staff
2. Hybrid/ Multi Modal OR's
3. Backup to Gold Standard



Organization



Separation of R&D and production



Formal Requirements



A screenshot of a web browser window showing the Lovdata website. The search results for 'Lov om medisinsk og helsefaglig forskning (helseforskningsloven)' are displayed. The page includes a search bar, navigation tabs, and a list of search results. The first result is 'Lov om medisinsk og helsefaglig forskning (helseforskningsloven)'. The page also shows a sidebar with navigation options and a footer with contact information.

A screenshot of the REK website header and navigation menu. The header features the REK logo and the text 'REGIONAL COMMITTEES FOR MEDICAL RESEARCH ETHICS'. The navigation menu includes 'Deadlines and Forms' and 'Rules and Procedures'.

About Applying To REC

REC shall provide advance approval for:

- Medical and health research projects
- General and thematic research biobanks
- Dispensation from professional secrecy requirements for other types of research

More information about applying to REC can be found under the specific menu option - see in particular **Rules and Procedures and Deadlines and Forms**.

Applications must be sent to REC in electronic format. You have to log in to get access to the forms.

Latest messages

Change in publication of final reports from 12.4.2013
The submitted form for the final report to REC (Sluttmelding) is from 12.4.2013 onwards, made publicly available in its full text in the REC Public Records - Application Database. For final reports submitted before this date, the publication attached to the form is publicly available.

If you have not logged on to the portal since January 5th, you have to order a new password
Updating of the REC case portal January 6th, requires every user to order a new password. Before logging in, you must clear your browser cache and delete cookies. Please remember to edit your user profile in order to access your forms and applications. We apologize for any inconvenience. If you have problems logging in, please contact your local REC, or send an email to post@helseforskning.etikkom.no
Change password
Go to https://helseforskning.etikkom.no/rikbViewer/page/lopping?_ikbLanguageCode=us

A screenshot of a user registration form on the REK website. The form includes fields for 'Create new user' and 'Forgot/new password'. Below the form, there are images of a microscope, a beaker, and a young girl, along with a DNA double helix and a virus-like structure.



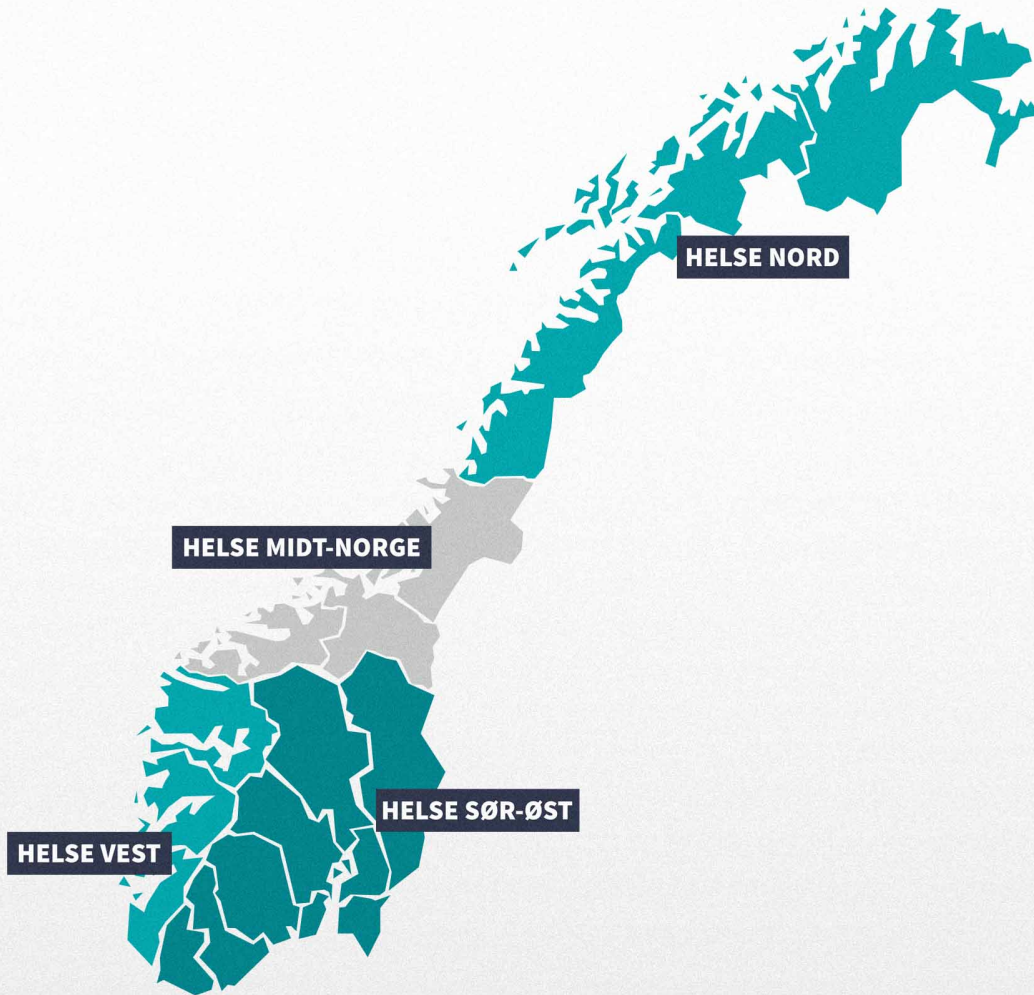
RHA ICT Strategy

«Better patient safety and better quality by standardization av work processes and technological solutions.

Main programs:

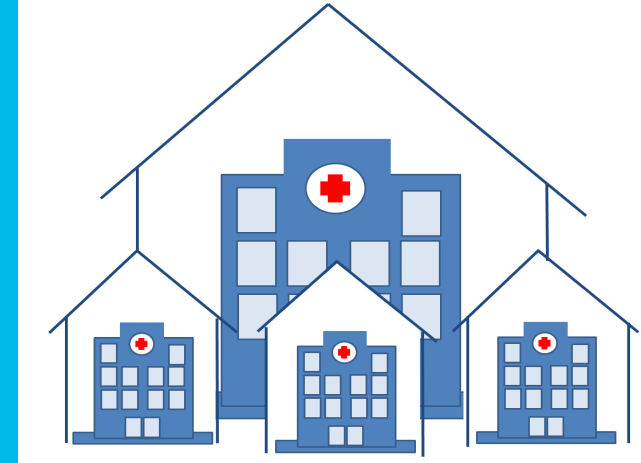
- Regional Clinical Solution
- Corporate Governance
- Regional ICT for Research

~250 cases





Hospital@Home at OUS



- Project: Specialist Services in the home- «OUS Home»
 - Establish plan for implementation as part of hospital operations
 - Improve efficacy
 - Scalable solutions
 - Remote follow-up
 - Ambulant services
 -

Objective: «OUS Home handles 30% of the hospital's activity in 2030»



Advanced Hospital



Arena-flexible solutions



Digital treatment



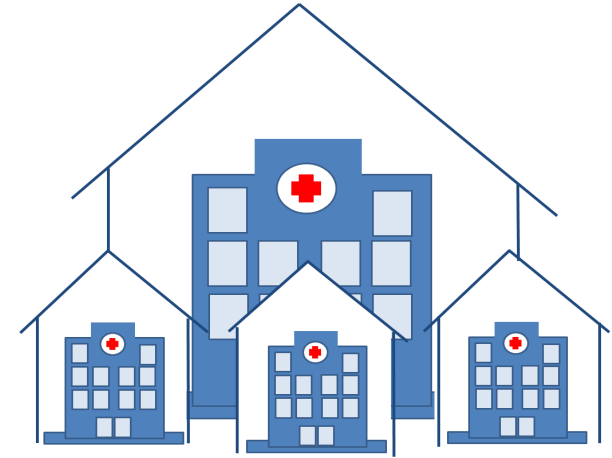
Ambulant services



Remote monitoring

Ongoing projects:

- Children
- Hematology patients
- Cancer patients
- Pulmonary disease patients
- Epilepsy patients
- Front team children
- Front team adolescent
- Kidney transplant patients
- Dialysis patients
- ALS patients
- Nordre Aker



Continua Certified Bluetooth Low Energy Sensor Network Project

Objectives:

- 1) **Bluetooth Low Energy (BLE) og Continua[®]-end-to-end solution**
- 2) **Develop Generic Sensor Profile for BLE for «public domain»**

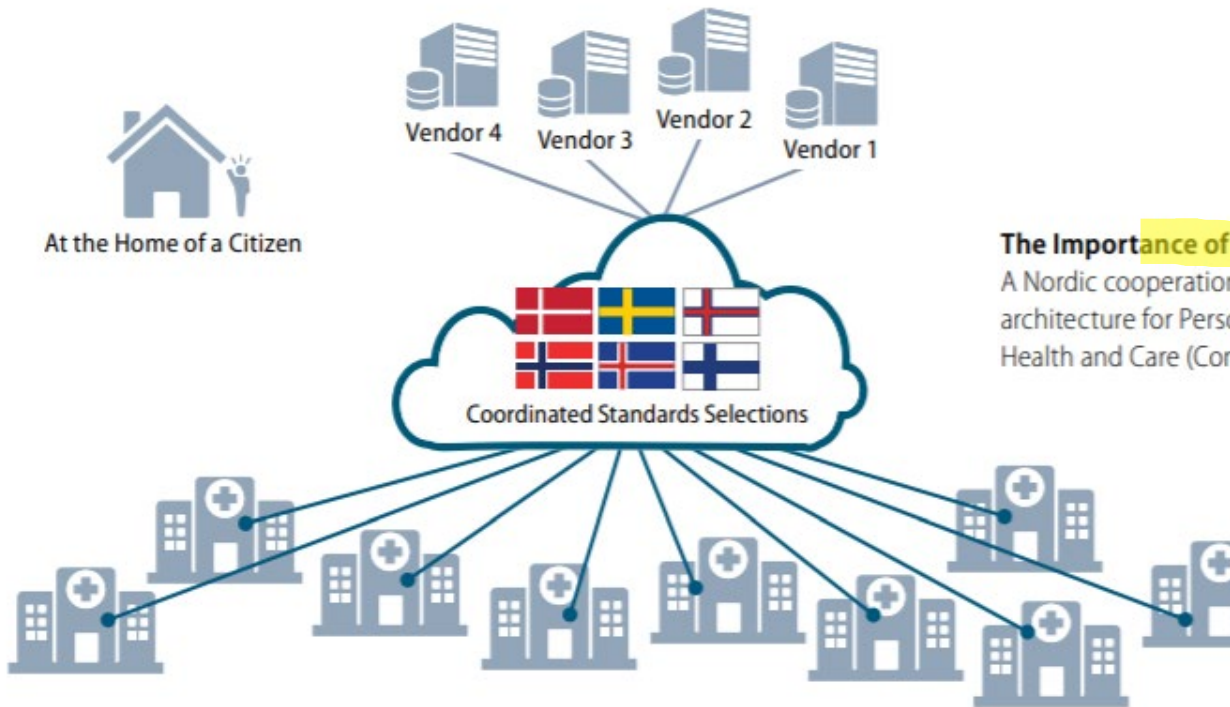
Partnes:

Acando (-> Inventas) , Bitvis (-> Inventas), Vitir (-> Safe4), Extreme Networks

OUS; IVS, IKT-AVD, + Sykehuspartner

Background

NORDIC REFERENCE ARCHITECTURE



The Importance of Standards:

A Nordic cooperation on reference architecture for Personal Connected Health and Care (Continua-based)

Regjeringen.no

Tema Dokument Aktuelt Departement Regjering

Du er her: [Forsiden](#) • [Aktuelt](#) • [Nyheter](#) • [Standardisering av velferdsteknologi med Continua](#)

Standardisering av velferdsteknologi med Continua

Nyhet | Dato: 18.12.2014

Ny teknologi kan bidra til bedre helse- og omsorgstjenester og gi flere mulighet til å mestre egen hverdag. For å sikre at ulike løsninger fungerer sammen, innfører regjeringen standardiseringsrammeverket Continua på velferdsteknologiområdet i Norge.

Helse- og omsorgsdepartementet

- TEMA
- -
 -

Data Sharing

«-Data sharing in a unified way»

1) Retningslinje 03/2019

Anbefaling om bruk av HL7 FHIR for datadeling

Direktoratet for e-helse

2) Rapportnummer HITR 1221:2019

Veileder for utvikling av datadelingsgrensesnitt

Direktoratet for e-helse



This page is part of the FHIR Specification (v4.0.1: R4 - Mixed Normative and STU). This is the current published version. For a full list of available versions, see the [Directory of published versions](#).

Welcome to FHIR®

FHIR is a standard for health care data exchange, published by HL7®.

First time here?

See the [executive summary](#), the [developer's introduction](#), [clinical introduction](#), or [architect's introduction](#), and then the [FHIR overview / roadmap & Timelines](#). See also the [open license](#) (and don't miss the full [Table of Contents](#) and the [Community Credits](#) or you can [search this specification](#)).






Technical Corrections:

- **4.0.1**, Oct-30 2019: Corrections to invariants & generated conformance resources, and add ANSI Normative Status Notes


Level 1 Basic framework on which the specification is built

 Foundation	Base Documentation, XML, JSON, Data Types, Extensions
-------------------------------------------------------------------------------------------------------	-------------------------------------------------------






Level 2 Supporting implementation and binding to external specifications

 Implementer Support	 Security & Privacy	 Conformance	 Terminology	 Exchange
Downloads, Version Mgmt, Use Cases, Testing	Security, Consent, Provenance, AuditEvent	StructureDefinition, CapabilityStatement, ImplementationGuide, Profiling	CodeSystem, ValueSet, ConceptMap, Terminology Svc	REST API + Search Documents Messaging Services Databases


Level 3 Linking to real world concepts in the healthcare system

 Administration	Patient, Practitioner, CareTeam, Device, Organization, Location, Healthcare Service
-----------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------

Level 4 Record-keeping and Data Exchange for the healthcare process

 Clinical	 Diagnostics	 Medications	 Workflow	 Financial
Allergy, Problem, Procedure, CarePlan/Goal, ServiceRequest, Family History, RiskAssessment, etc.	Observation, Report, Specimen, ImagingStudy, Genomics, Specimen, ImagingStudy, etc.	Medication, Request, Dispense, Administration, Statement, Immunization, etc.	Introduction + Task, Appointment, Schedule, Referral, PlanDefinition, etc	Claim, Account, Invoice, ChargeItem, Coverage + Eligibility Request + Response, ExplanationOfBenefit, etc.

Level 5 Providing the ability to reason about the healthcare process

 Clinical Reasoning	Library, PlanDefinition & GuidanceResponse, Measure/MeasureReport, etc.
-----------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------



Personal Connected Health Alliance

“PCHAlliance, a membership-based HIMSS Innovation Company, accelerates technical, business and social strategies necessary to advance personal connected health and is committed to improving health behaviors and chronic disease management via connected health technologies”



- “The CDG’s fosters integration to enable medical-grade health/sensor data to flow from a multitude of vital signs devices used by consumers to health services, all the way into local, regional or national EHRs and data lakes in a safe and secure manner”
- **Medical-grade:** To achieve the above, the CDG achieves medical-grade interoperability by specifying an end-to-end information and communication technology (ICT) framework for personal connected health solutions based on recognized open standards, to create a secure and interoperable health data exchange.

Continua Conformity Assessment



All Organizations who want to be listed are required to test their product with the CTT

Organizations who successfully pass the CTT may be listed.

A "Continua Compliant" Product may use the wordmark only (no Continua logo).

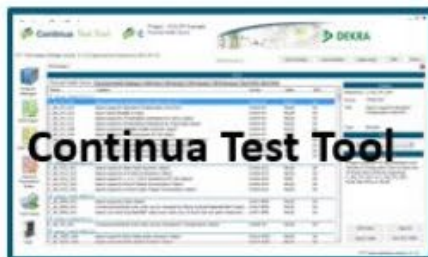
A member who has certified may use the Continua Certified logo.

1 **Continua Compliant**



Free Listing

"Continua Compliant"



Continua Test Tool

2 **Continua Certified**

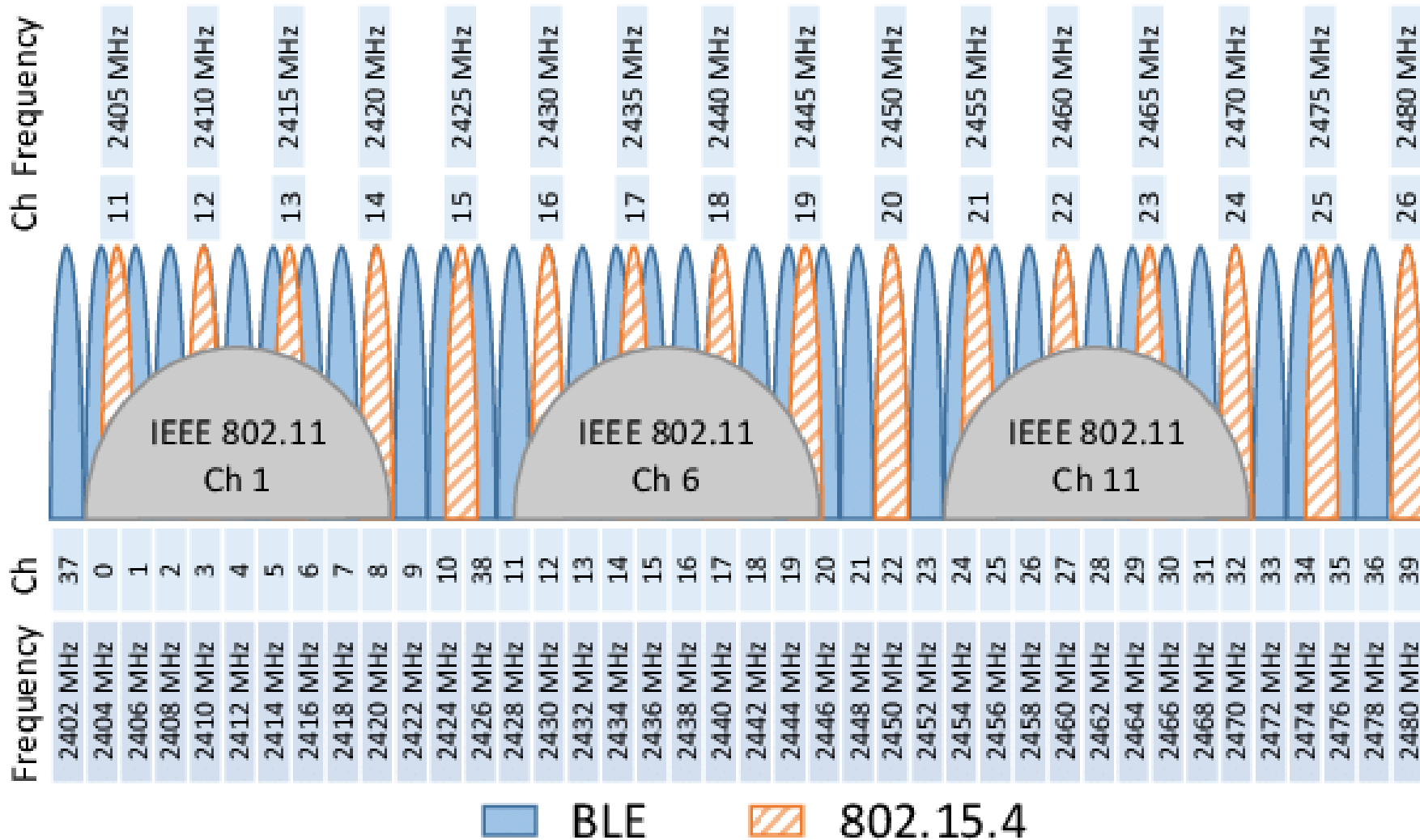
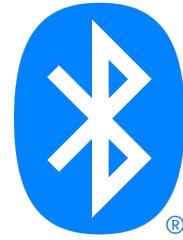


Member Only Listing

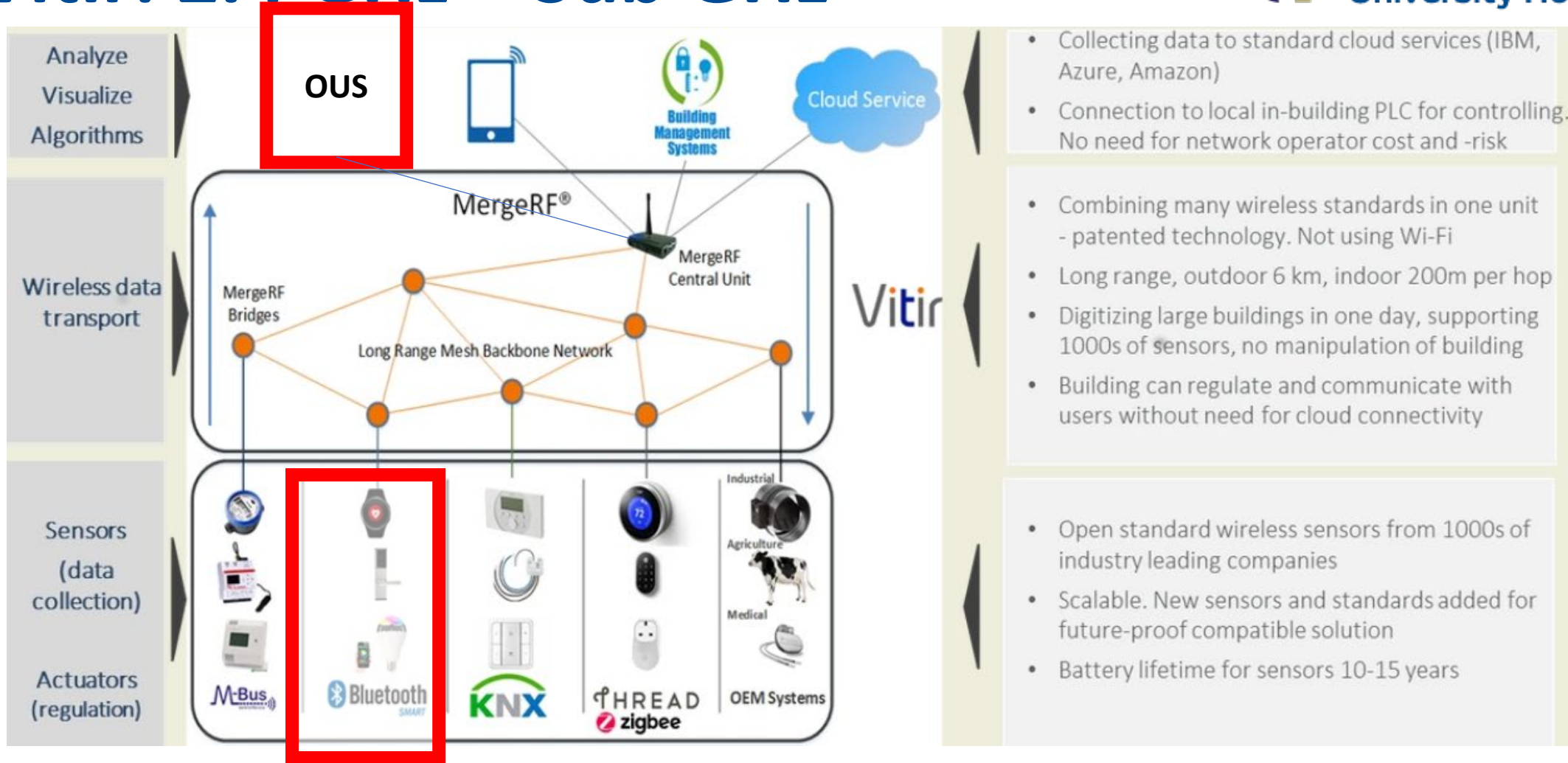


PCHAlliance Match-making (matching buyers to sellers)

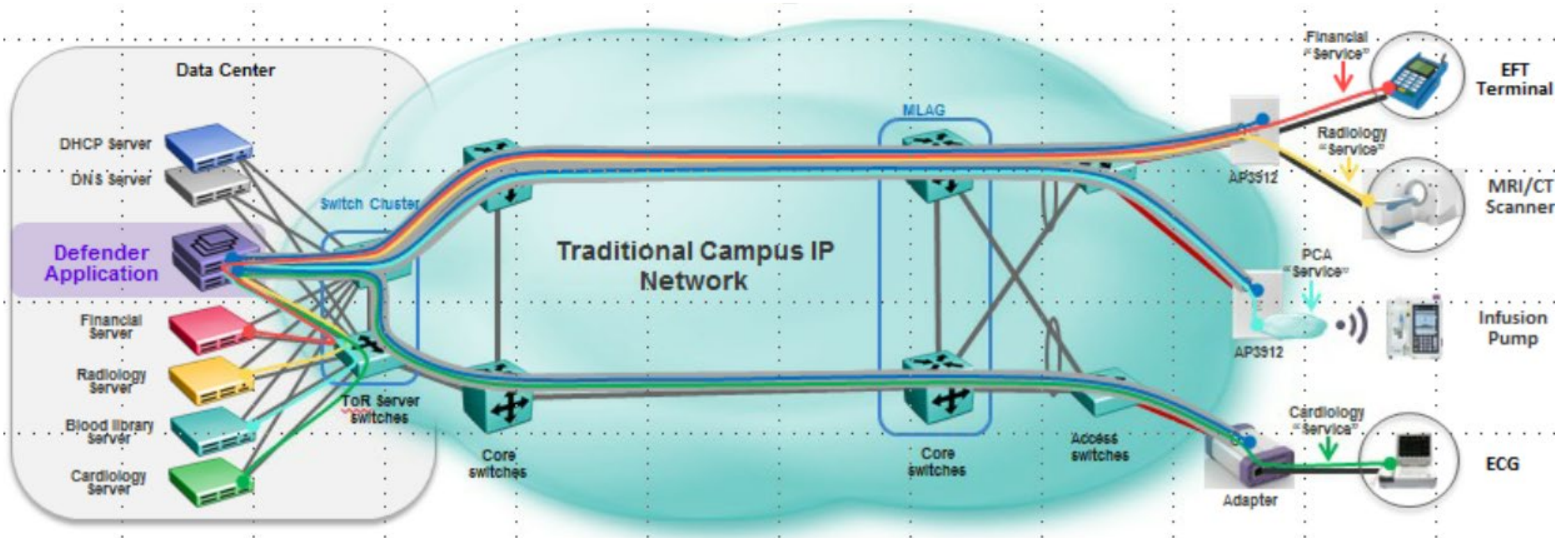
2.4 GHz ISM-band



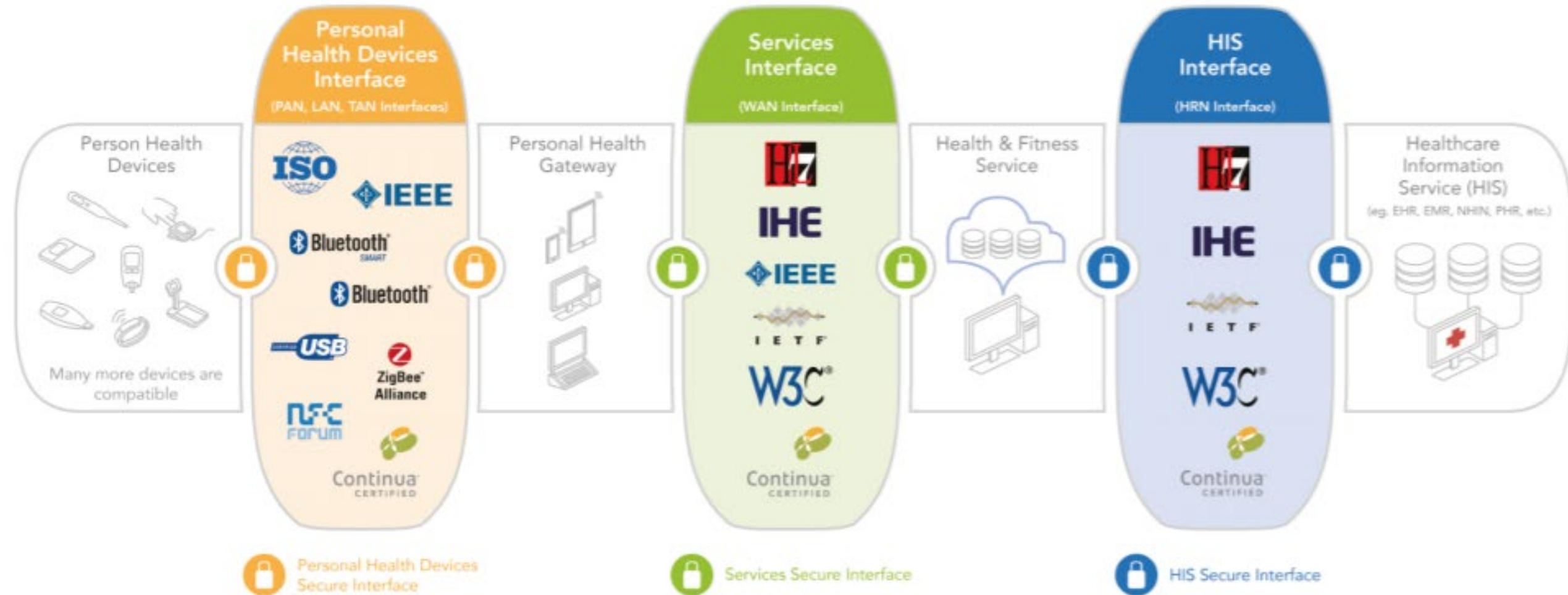
Vitir: 2.4 GHz + Sub GHz



Extreme Networks Defender

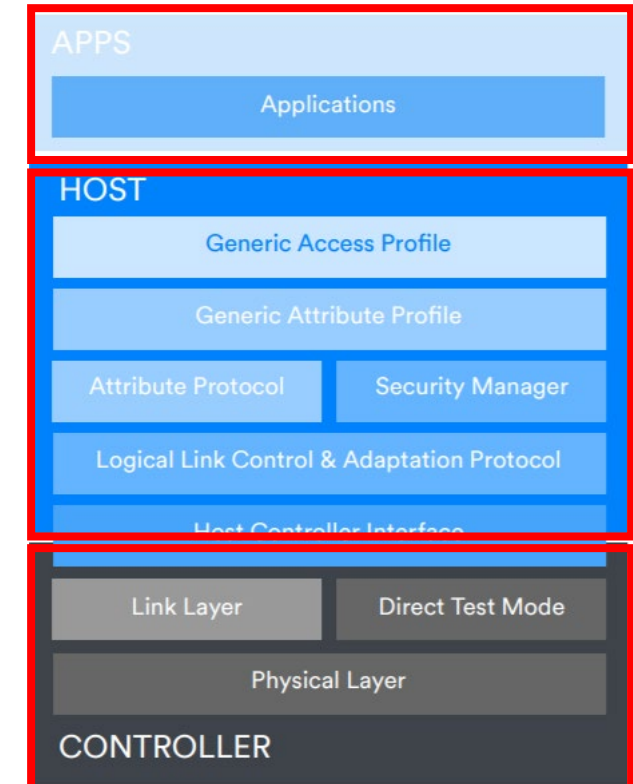


Continua Architecture

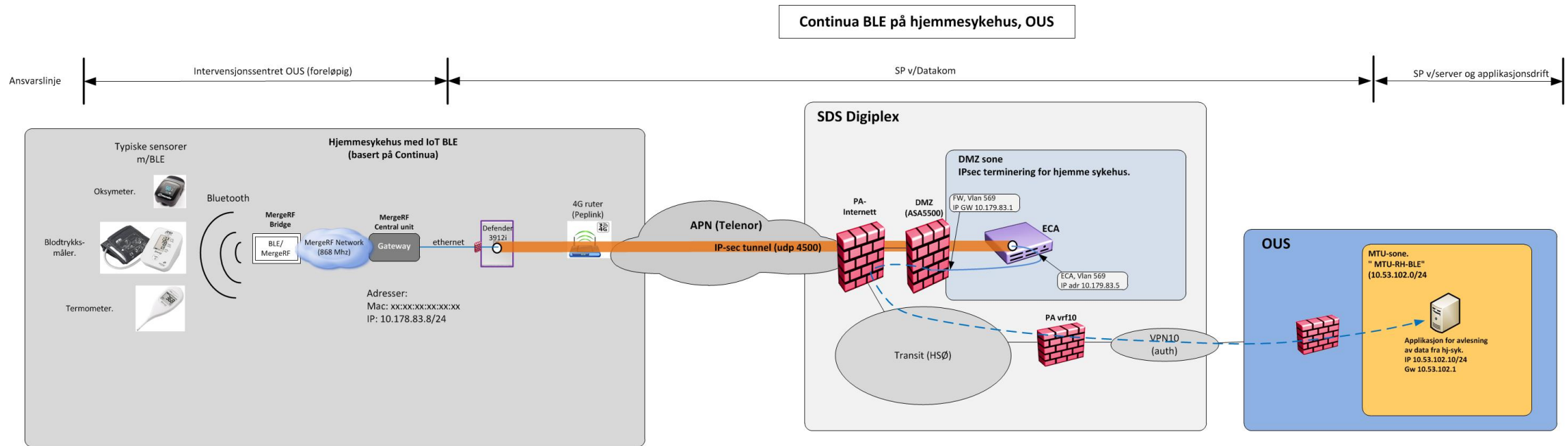


Personal Connected Health

- Bluetooth Low Energy (BLE) Standard
- 6 Continua Design Guideline profiles
- Intuitiv use
- Security «Just Works» 128-bit Advanced Encryption Standard



Continu@OUS Pipeline



HYDRATION MONITORING REINVENTED

Certainty in a single patch

Extended hydration monitoring with **re:balans®** gives you a larger and clearer window into the patient's hydration trends. One week of continuous and remote monitoring helps ensure that critical information is not missed and that healthy fluid balance is maintained.

Gecko Patch is not a commercial available device & not EU certified per 2019.



Pregnabit er en telemedisinsk CTG for fosterovervåking hvor som helst og når som helst.

[Oppdage Pregnabit](#)

[Bli forhandler](#)



WHAT ABOUT THIS PRODUCT?

Washable and comfortable medical device (CE Class IIa) in form of a t-shirt with multiple embedded sensors & electrodes designed to capture continuous data on 6 physiological parameters. Data is transmitted to health data hosting servers and made available to Healthcare Professionals for analysis. The multiparametric solution allows care givers and healthcare professionals to accompany their patients all along the continuum of care for RPM (Remote Patient Monitoring) or therapeutic efficiency programs.

- Thoracic respiration
- Physical activity
- Abdominal respiration
- Temperature
- Electrocardiogram
- Pulmonary impedance

WANT TO LEARN MORE ABOUT THIS PRODUCT?

[CONTACT US](#)

Finn medisinske klinikker som bruker Pregnabit:

[Liste over klinikker som bruker Pregnabit](#)

Har De spørsmål?

Ta kontakt: +48 664 346 559 office@nestmedic.com

Eller legg inn dine personlige opplysninger nedenfor:



Drowzee



DOWNLOAD OUR BROCHURE



Select a location

Select a sublocation

Select a room to Join or Conf



Oslo University Hospital

The Intervention Centre



Building 1



Virtual Rounding

Building 2



Virtual Rounding Configuration

Use this to add a patient's name for



Selected Room Information

Name
Room 101

Room Location
Building 1

Room SubLocation
Floor 1

Patient Name
Max Fritz

Shared to
1

Last Share
4/13/2020 12:53 AM

Last Reset

Set Patient Name

Enter the Patient's Name. This will be used to identify the patient in the system, and in all emails sent for inviting external participants (above).



Welcome to SmarterHealth Hospitals. Please click Join so that your doctor or nurse can communicate with you.



Conclusion

- Personalized and needs-driven
- Regulatory Compliance
 - Security and confidentiality
 - International standards
 - Data sharing
- OUS ICT
 - Infrastructure
 - ICT portfolio
- New technologies- new opportunities
- ROI
 - Resource use
 - Automation/AI
- MedTech- Behandlingshjelpemidler
 - > 20k brukere i HSØ
- Service design, Interaction design
- User friendliness/UX

Value Based Research:

- Patient value
- Outcome
- Cost



