EU CELTIC-plus "Future Internet"
OASIS/EPR-forum Partner search at Telenor IT-Fornebu 3. March

Present: Co-founder & CEO, 10 years, *EPR-forum (tGov) 2004-*

OASIS member, 11 years, Chair *OASIS CAM TC* & Chair *OASIS BCM EPR SC (Templating standards) 2003-*

COB , 20 years, *Vitheia Norge AS / Integrasoft Srl (SW development) 1994-*

COB & CEO, 28 years, *IT & Integration AS (Startups / Standardization/ Education) 1986 -*

Previous: Boardmember, 12 years, *CEA/CEBus Industry Council (Bus Interoperability) 1987-1999*

IT consultant logistic & service management, 2 years, *Electrolux 1987-1989*

IT and Finance manager, 4 years, *Falck and G4S (Falken AS) 1983-1987*

Section manager SW R&D (Energy, Ship & Offshore automation), 2 years, *Landis+Gyr (Valmet Automation AS) 1981-1983*

Project manager R&D (Energy, Ship & Offshore automation), 4 years, *ABB (NEBB AS) 1977-1981*

The Future Service Model for Home & Community Healthcare

The eHealth project describes how new Healthcare services will be delivered using a range of new <u>Open Technologies</u> & <u>Open Standards</u> developed by OASIS and EPR-forum !
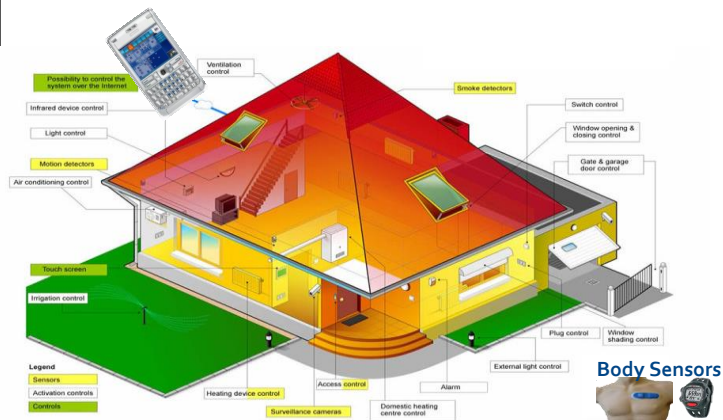

OASIS TGF, BCM and CAM

Open Industry standards

IEEE

DEST
Digital Ecosystems & Technologies

IEEE DEST 2013

Spesial Theme:

Smart Planet & Cyber Physical Systems as Embodyment of Digital Ecosystems

Think GLOBAL but Act LOCALLY !

Experts on TAP:

10. Seed Inaugural Workshop

Building a Digital Ecosystem for Societal Empowerment
Wednesday July 24, 2013

Workshop Chair
Jenny Huang
Strategic Standards,
AT&T Inc.
Director of Research,
iFOSSF.org

Workshop Facilitator
Ken Homer
Founder
Collaborative
Conversation

Expert on Tap
Achim Karduck
Professor

Expert on Tap
Mireille Cronin Mather
Executive Director

Expert on Tap
Dr. Kouji Kozaki
Associate Professor
Institute of Scientific and
Industrial Research
Osaka University

Expert on Ta
Dr. Osamu S
Academic
Programme
Institute for
Sustainability
Peace
United Nation
University

Expert on Tap
h Rausch
gram Manager
d World Solutions

Expert on Tap
Hans A Kielland
Aanesen
CEO
EPR-Forum

We are excited to bring you a tho... year's conference,
The SEED Framework.

Traditional approaches to Social, Economi... EED) have historically
employed a closed, top-down model in w... nd the input of local
stakeholders is rarely sought. More re... nt from a holistic,
multidisciplinary perspective—while a major... hindered by a lack of
appropriate tools and well-defined process... k effectively together
towards common goals.

The SEED Framework, developed by iFOSSF (International Free and Open Source Solutions
Foundation), is specifically designed to support locally-led innovation with self-organizing,
multidisciplinary collaborations and, most importantly, to translate concepts and ideas into actions.
Combining the strength of both structured and unstructured workforces, the framework employs an open,
"coopetition" strategy that integrates existing standards and practices across multiple sectors, enabling a
high-level, results-oriented collaboration with a deep awareness of the local culture.

Page 21 of 45

IEEE

SEED Workshop 24. July – Stanford University, California, USA
(SEED = Social, Economic & Environmental Development)

Sustainable Digital Ecosystems in Social, Economic & Environmental Development.

The SEED framework developed by iFOSSF
(International Free & Open Source Solutions Foundation)
Intention to support locally driven innovation with
SELF-organizing & MULTI-disciplinary collaboration with focus on ACTION
(Translate Concepts & Ideas into Actions)

Track F:

"Healthcare & Sustainable Living"

The Future Service Model for Home & Community Healthcare

3

Learn from previous lack of standardization ?
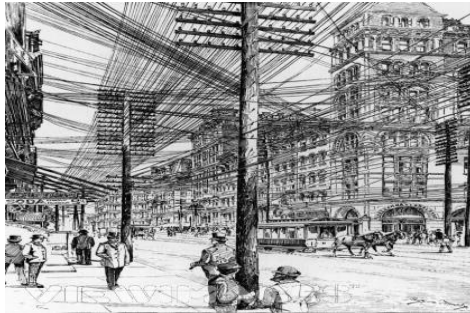
Public Interaction needs "open" XML-protocols and not many parallel national Infrastructures !

Do we have to make new mistakes ?

Info. Interaction**: Differ INFRASTRUCTURE** (Public Governance) **from SERVICES** (Business)

National Infrastructure Transformations!

(Todays Parallell Networks: Banking, Health, SmartGrid, TETRA/Emergansy, Police, Military, Broadcasting, etc etc)

New thinking is required to differentiate between the following 5 important related aspects:

PUBLIC Management Resposibility

1. **National communication infrastructures:** **"Information Highways"** the national physical interacting Packet Switched IP-network using basically **Fiber** og **4G-mobile networks.**

2. **Shared Data:** Shared persistent **data in public registers**.

3. **Abstract Common and Open Service models handling Info. exchange:** Abstraction XML models for Informattion exchange – **Downward semantic compatibility interacting on shared Data**.

COMMERCIAL Business Responsibility

4. **Traditional Software Programs/Platforms:** The Software should be adapted and substituted continously according to new applications, legislations, technologies and methodelegies. All information Exchange should be done through common **Certificated Service Models**.

5. **Executing legislated public services and buying Care equipment:** Undertaken by both Private and Public enterprices.

Interoperability in the Infrastructure Layers

Common "Traffic Rules" (red arrows) a must to achieve Interaction, Integration and Reusability

HYBRID SYSTEM ARCITECHTURE: Define INFRASTRUCTURE & TRAFFIC RULES before implementing SERVICE SOLUTIONS

Multi functional User Interfaces :
SmartPhone, PDA/Pad, LapTop, PC , Touch Screen etc

Flexible and Open User Interface:
OS independency
(Cross Platform based)

Top Level Server: Interexchanging & Service driven Super Structure

XML configured **TEMPLATES:**
• XML-structure
• Rules
• DB-mapping
• Parameters

Infrastructure: Internet / Intranet (TCP/IP)

Server 1:
Legacy / ExpertSystem

Server n:
Legacy / ExpertSystem

Infrastructure:
Process net / Ethernet

Infrastructure:
Process net / Ethernet

Node 1:   Node n: Node 1:   Node n:

Security   Entertainment   Energy   Food   Health
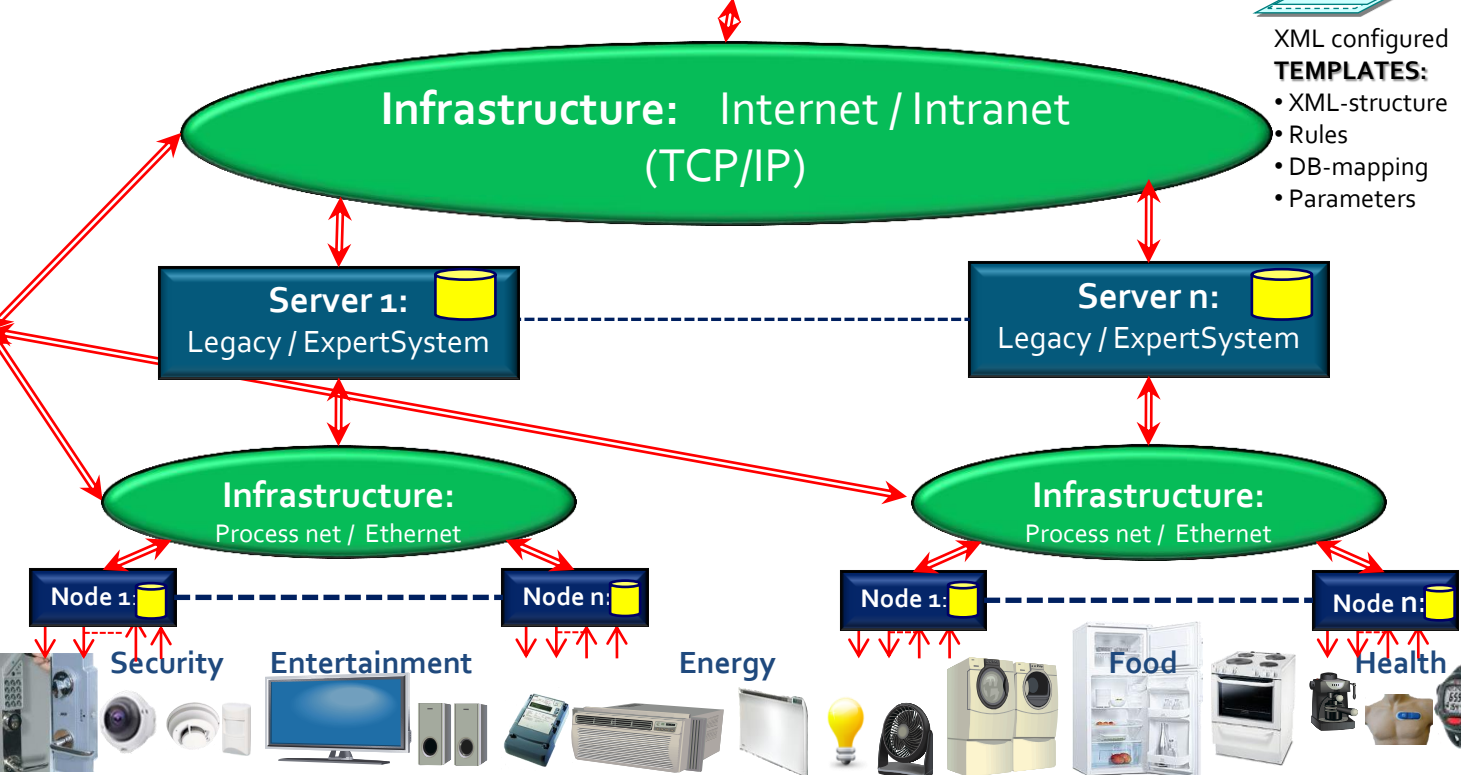
"Cloud of Things": Home Application Areas / Application Groups

(Network with EPR-eDevices)

Service Practisioners

Service Receiver

Sosial Network

Smart Home Server

Appl. Groups:
(Functional Profiles)
- **0x   General**
- **1x   Audio/Video**
- **2x   Lighting**
- **3x   Communication**
- **4x   HVAC**
- **5x   Utility**
- **6x   Security**
- **7x   Appliance**
- **8x   Convenience**
- **9x   Food**
- **10x   Health**

x = sub groups

Work Instructions & Reporting:
SmartPhone as Work Organizer & Control unit (Self Management)

Health Condition Monitoring:
Body and Environmental sensors and Self service and Self Diagnostic

Entertainment & Social activeties:

IP cameras

Interactive TV

Game, Video Music, Radio

Meal preparation & Environmental control :

Stove

Other Kitchen equipment

Refridge & Freezer

Security & Environmental control:

Access control

IP cameras

Smoke detectors

Motion detector

Energy with Environmental control:

Lighting system

Dish-washer

Washing&Drying machines

Ventilation

Heat pump

Heater

EL-meter

NANO-based Health condition sensors:

Waste water from Sink

Waste water from WC

From Blood

''Cloud of Things'' with EPR-eDevice & OASIS CAM Templating:
Open ''mirroring'' standard by Functional XML-modeling of Network eDevices (Nodes)
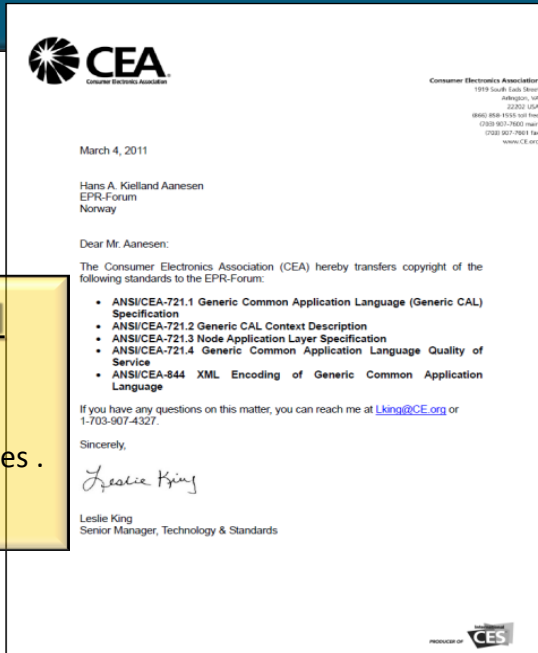
30 YEARS OF FUNCTIONAL STANDARDIZATION: (1984- 2014)

The Interoperability standard of electronic network based equipment is derived from the ANSI/CEA-721 work developed and specified over the last **30 years** by more than 400 companies, organizations and individual persons as:

OASIS

NEW XML-UTILIZATION
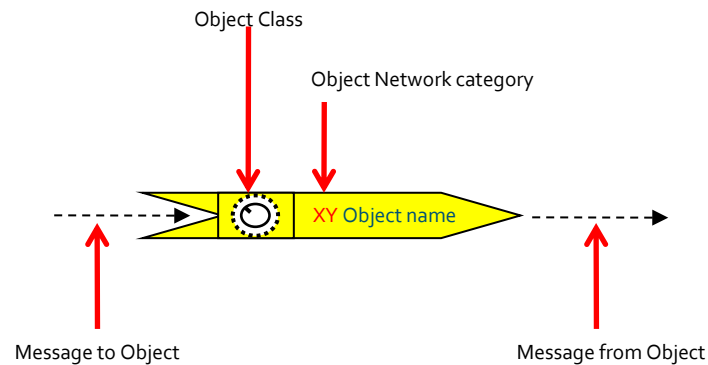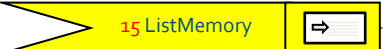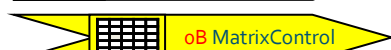#### (EPR-eDevice)

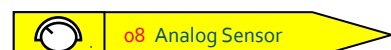(Building blocks in EPR-eDevice CAM Dictionaries)
The standarized functional models of networking Nodes .

CEA
Consumer Electronics Association
1919 South Eads Street
Arlington, VA
22202 USA
(866) 858-1555 toll free
(703) 907-7600 main
(703) 907-7601 fax
www.CE.org

March 4, 2011

Hans A. Kielland Aanesen
EPR-Forum
Norway

Dear Mr. Aanesen:

The Consumer Electronics Association (CEA) hereby transfers copyright of the following standards to the EPR-Forum:

- ANSI/CEA-721.1 Generic Common Application Language (Generic CAL) Specification
- ANSI/CEA-721.2 Generic CAL Context Description
- ANSI/CEA-721.3 Node Application Layer Specification
- ANSI/CEA-721.4 Generic Common Application Language Quality of Service
- ANSI/CEA-844 XML Encoding of Generic Common Application Language

If you have any questions on this matter, you can reach me at Lking@CE.org or 1-703-907-4327.

Sincerely,

Leslie King
Senior Manager, Technology & Standards

PRODUCER OF CES

- **ABB**
- Ademco
- **AMP**
- **Analog devices** (Domosys Corporation)
- Caddx Controls
- Chamberlain Group
- Cutler-Hammer
- **Diablo** Research Corporation
- Dr. Ken Wacks (MIT)
- **Ericsson**
- Full House Control
- **Generel Electric** (Homenet)
- **Honeywell**
- **HP** (Compaq Computer Corporation)
- Hypertek
- **IBM**
- **Intel**
- InteliHome
- **Intellon Corporation**
- Interactive Media Systems
- ISO/IEC JTC1 SC25 WG1 Home Electronic System
- **IT & Integration (EPR-forum/OASIS)**
- **Leviton**
- **Lucent Technologies**
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- **Molex**
- **Panasonic Technologies**
- **Philips**
- **Siemens**
- **Smart Corporation** (Microsoft + GE)
- Tecom
- The Training Department
- **Thomson Consumer Electronics**
- XLSynergy
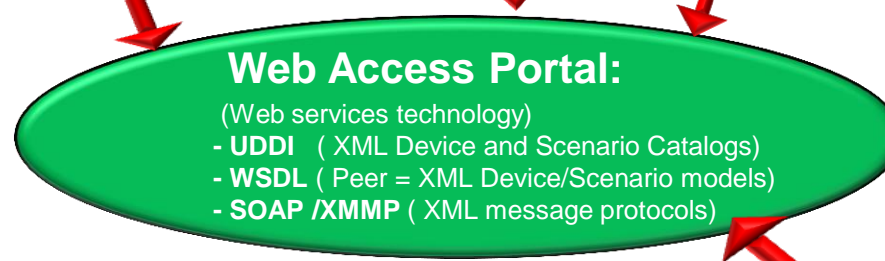
8

EPR-eDevice Modeling OBJECTS/Components (Symbols)
(Model elements made by OASIS Template eDevice Dictionary)

- 01 Node Control
- 02 Context Control
- 03 Data Ch.Rx
- 04 Data Ch.Tx
- 05 BinaryControl
- 06 Binary Sensor
- 07 Analog Control
- 08 Analog Sensor
- 09 MultiPosControl
- 0A MultiPosSensor
- 0B MatrixControl
- 0F Meter

- 10 Display
- 11 MediumTrans
- 13 Dialer
- 14 Key Pad
- 15 ListMemory
- 16 DataMemory
- 17 Motor
- 19 Synth/Tuner
- 1A ToneGen.
- 1C Counter/Timer
- 1D Clock

Object Class

Object Network category

XY Object name

Message to Object

Message from Object

EPR-eFolder/EPR-eDevice Access structure

INTERNET / INTRANET

PROCESS NET

WEB Browsers: Thin Clients (OS independent Client User Interface GUI)

Bus controlled eDevices:

- Ethernet
- Firewire
- USB
- Bluetooth
- CAN
- X10
- DALI
- KNX/EIB
- RFID
- Zigbee
- Lon
- SCP/CEBus
- PowerBus
- MOD bus
- MDB
- etc

PROCESS - SERVER

Home server

Interface

Web Access Portal:
(Web services technology)
- **UDDI** (XML Device and Scenario Catalogs)
- **WSDL** (Peer = XML Device/Scenario models)
- **SOAP /XMMP** (XML message protocols)

SOA Front Office
Portal + UDDI catalog
(WSDL/TEMPLATE-models of eDevices + Scenarios)
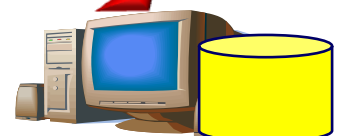
EPR-eFolder/EPR-eDevice Wireless Network sensors

INTERNET/INTRANET

PROCESS NET

WEB Browsers: Thin Clients (OS independent Client User Interface GUI)

Bus controlled eDevices:

Service management/ Practitioners:

PROCESS : SERVER

Personal : server

4G Interface

- **Bluetooth**
- **RFID**
- **Zigbee**
- **IR**
- **etc**

Web Access Portal:

(Web services technology)
- **UDDI** (XML Device and Scenario Catalogs)
- **WSDL** (Peer = XML Device/Scenario models)
- **SOAP /XMMP** (XML message protocols)
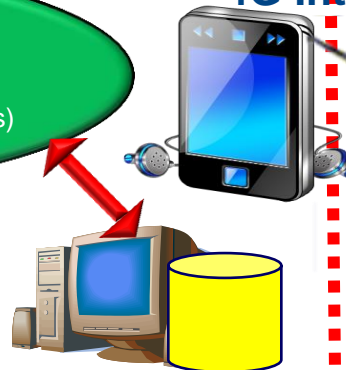
SOA Front Office
Portal + UDDI catalog
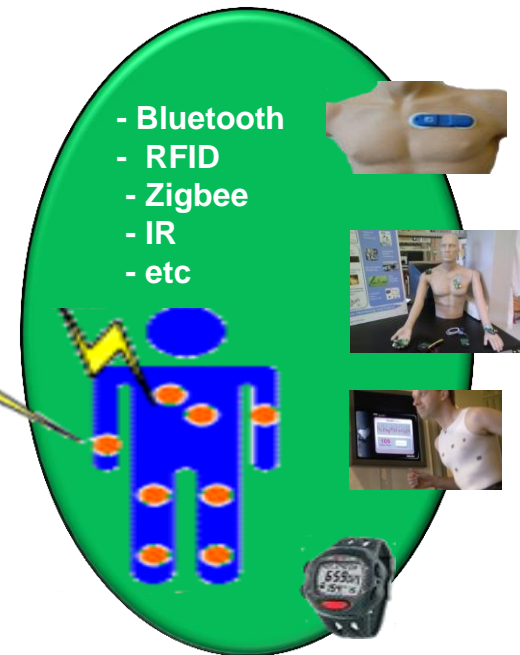(WSDL/TEMPLATE-models of eDevices + Scenarios)
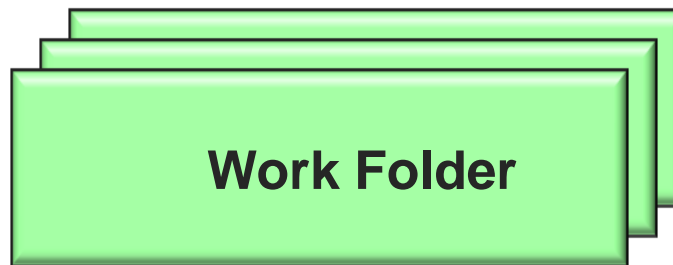
EPR-eFolder Service Management

(Workflow Engine: eFolder Container with Work folder & TEMPLATE Steering cards)

Access Service Portal:
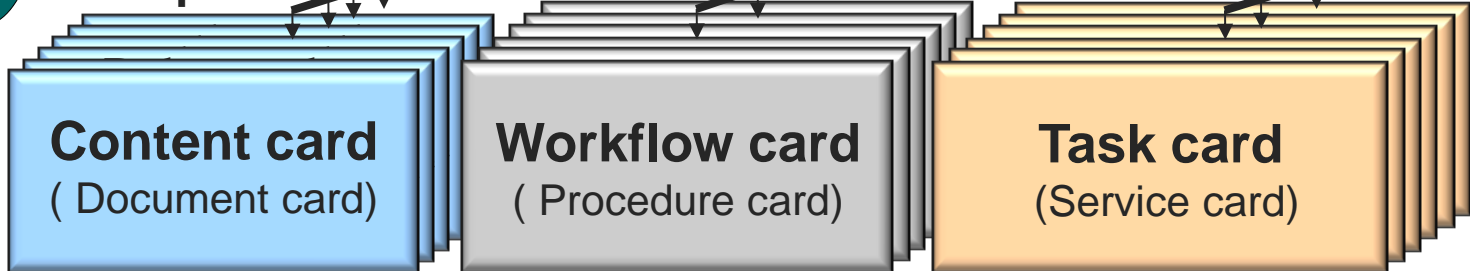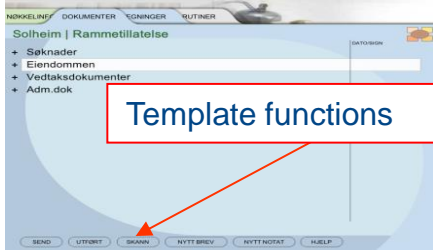
Role

Single Sign-On portal:

Templates:

Work Folder

Templates

Phase

Anna Skogsbygda | Aktiv

BRUKER	Anna Skogsbygda – 62 97 11 11
PÅRØRENDE	Maren Andersen
FASTLEGE	Arne Limoen
MOL.ADR.	XXX
UXL-KARTREF	XX

SØKER   AKTIV   PASSIV
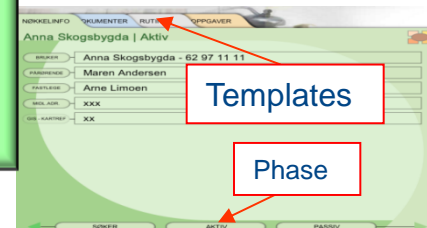
Content card
(Document card)

Workflow card
(Procedure card)

Task card
(Service card)

NØKKELINF... DOKUMENTER TEGNINGER RUTINER

Solheim | Rammetillatelse
DATO/SIGN
+ Søknader
+ Eiendommen
+ Vedtaksdokumenter
+ Adm.dok

Template functions

SEND   UTFØRT   SKANN   NYTT BREV   NYTT NOTAT   HJELP

NØKKELINF... DOKUMENT TEGNINGER RUTINER RUT. BEHOV OPPGAVER

Solheim | Behov
DATO/SIGN
+ Rekvisisjon Byggleverandøren AS   24.04.01 NN
+ Tillegg
+ HMS
+ Endring
+ Kvalitet

SEND   UTFØRT   SKANN   NYTT BREV   NYTT NOTAT   HJELP

NØKKELINF... DOKUMENT RUTINER OPPGAVER

Anna Skogsbygda | Spesifikasjon

| | FREKVENS | DAG | UTFØRT |
| Sårbehandling | Daglig | | |

OPPGAVEBESKRIVELSE

UTFØRELSESRAPPORT

Sår størrelse	Millimeter
Infeksjon	JA	MULIG	NEI
Sirkulasjon	GOD	MIDDELS	DÅRLIG
Prøver	JA	NEI
Anmerkning	
Rapport	xx xx (utført av, dato)

SEND   UTFØRT   BEHOV

Demo

EPR-eFolder Scenario OASIS BCM/CAM Template Examples:
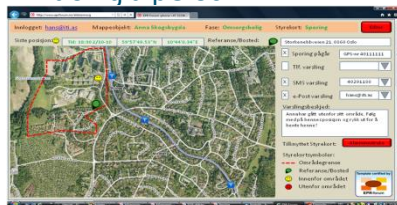
(Scenario Adaption/Composing)

TEMPLATES examples spesified by Health care Practisioners for individual people with Dementia:
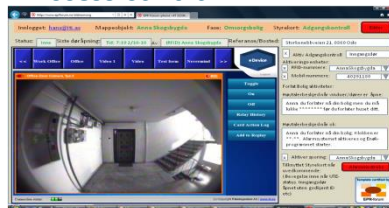
APPS:
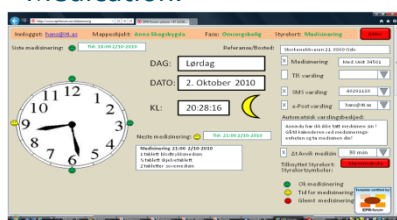
Tracing a person:

Access control:

Sosial Security:

Fall/movement of a person:
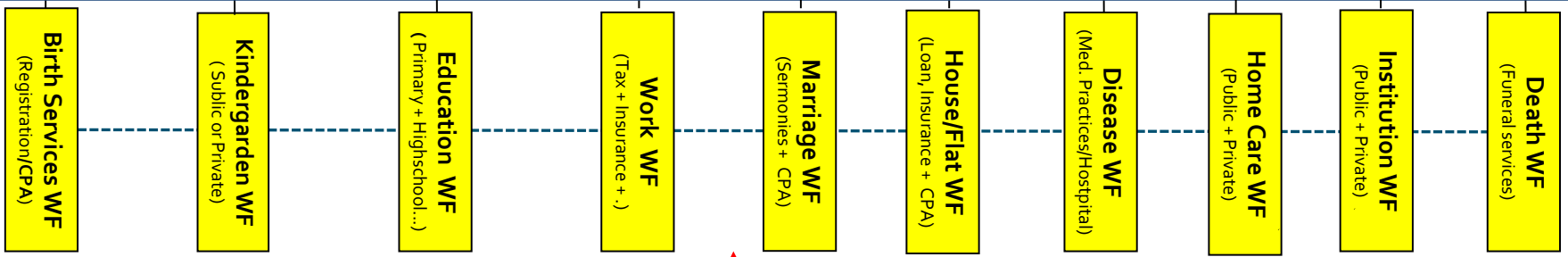
Condition Monitoring:

"**Scenario Composing**"
Driven by Health care practitioners!

Interaction between Working processes & Routines as response on Deviation Handling by ENVIRONMENTAL TECHNOLOGY

Medication:

Tracking an object:

Service Phases in a Citizen's Lifecycle in your own Service Folder

Self Service / Self management with Service Folders & Condition Monitoring
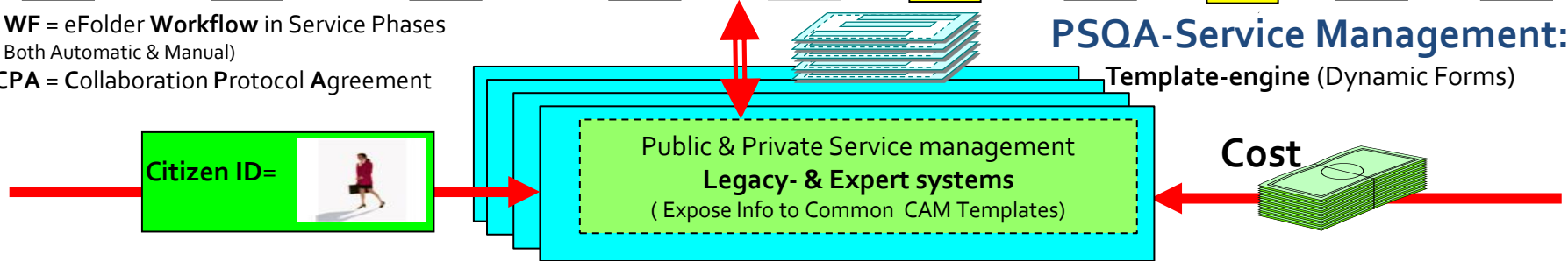
CLOUD PORTAL

PSQA = Public Supervision & Quality Assurance:
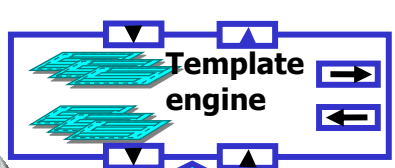Delivering of Quality services

[time]

Birth Services WF (Registration/CPA)

Kindergarden WF (Sublic or Private)

Education WF (Primary + Highschool…)

Work WF (Tax + Insurance + .)

Marriage WF (Sermonies + CPA)

House/Flat WF (Loan, Insurance + CPA)

Disease WF (Med. Practices/Hostpital)

Home Care WF (Public + Private)

Institution WF (Public + Private)

Death WF (Funeral services)

WF = eFolder **Workflow** in Service Phases
(Both Automatic & Manual)
CPA = **C**ollaboration **P**rotocol **A**greement

PSQA-Service Management:
Template-engine (Dynamic Forms)

Citizen ID=

Public & Private Service management
Legacy- & Expert systems
(Expose Info to Common CAM Templates)

Cost

Semantic Interoperability Standards Stack

(OASIS CAM , BCM , SAML, ebSOA, BPEL ....)

Template engine
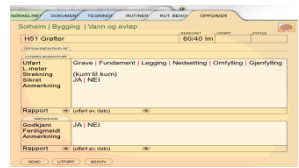
EPR-eFolder Templates:

Organizing and Orchestrating Loosely coupled applications (**ebXML, WS**)

"Object"=

Contract

Collaboration Partner Agreements- **CPA**

BP Specification Schema **BPSS**

Collaboration Partner Profiles - **CPP**

Process

Content Assembly Mechanism - CAM

Workflow

XForms

Messages

Artifact relationships

Presentation

Directory Services

Specifications Schema

| Rules | Events | Roles |

Motivation   **Time**   **People**

| Nouns | Verbs | Transport Routing, Packaging |

Data/Codes   **Services/Functions**   **Network**

| Core Components | WSDL | SOAP/XMPP MSH |

OASIS BCM-EPR SC (eFolder ISR)

Source: OASIS BCM Lubash Pyramid

XML-based OASIS CAM TEMPLATE modeling.

OASIS CAM-editor http://www.cameditor.org

EPR-forum starts Education in Templating Methodology at BI from medio 2013:

BI NORWEGIAN SCHOOL OF MANAGEMENT

OASIS

sourceforge

Visit project camprocessor
Register
Log In

| page | discussion | view source | history |

Main Page

On this page:
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Screenshots
Uses of CAM
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Project Tracker
Documentation
History
Authors and contributors
Articles
Other Resources

navigation
- Main Page
- Community portal
- Current events
- Recent changes
- Random page
- Help

search
[ ] [Go] [Search]

toolbox
- What links here
- Related changes
- Special pages
- Printable version
- Permanent link

CAM – Content Assembly Mechanism – toolkit

The CAM editor is the leading open source toolkit for building and deploying XML exchanges. The OASIS CAM is a public open standard. CAM can import, analyze and refactor existing exchange XML Schema for better compatibility and use in middleware, including generating model compliant XML Schema consistent with enterprise integration patterns.

CAM provides an intuitive approach using a WYSIWYG visual structure editor to dramatically simplify the process of developing and managing XML business information exchanges. This gives developers control, insights and analysis that are needed for consistent, interoperable and reliable exchanges. The CAM toolkit also automates the tasks of generating supporting artifacts such as business documentation, cross-reference spreadsheets, models, XML Schema and test XML instances. Compatible with the NIEM approach for information exchange integration with extensible profiles for NIEM, OASIS and more.

The CAM toolkit supports the use of Canonical Model dictionary components with visual Drag and Drop designing. Also provides a set of tools for harvesting and generating canonical dictionaries from existing XML Schema libraries or enterprise data modelling tools.

The standalone CAMV validation engine, written in Java, implements an XML validation framework using the OASIS CAM specification as the foundation. Also designed for integration with Service-Oriented Architecture (SOA), the CAMV XML validation framework supports use with other message based integration patterns such as Enterprise Application Integration (EAI), LEXS (Logical Entity Exchange System) and ebXML messaging systems.

Sponsors

ORACLE®

Oracle is a proud sponsor of the CAM project and its application to the National Information Exchange Model initiative along with XML information exchanges for public sector applications.

Screenshots

Illustrative screenshots from CAM editor main menu interface

CAMed Screenshots

CAMeditor Main Perspective

Validation Results Screen Display

CAM-dictionaries:
- *EPR eDevice Templating*
- *EPR eFolder Templating*

Real Time Cloud Computing & Cloud of Things

(**www.tGov.no**)

Nursing People:

Nursing Plants & Animals:

Startups Smart & Easy Living concepts:

META-Engineering:Sustainable Digital Eco-systems by Self –Service/Management

1. **Transformational Government**(www.tGov.no / www.niem.no) (eGov/PSQA)
    - ➤ **OASIS/EPR-forum** Bridging Systems in Real Time (www.eprforum.no)
    - ➤ Electronic co-operation community (www.esam.no) "eSamarbeidsarena"

2. **SmartHealthCare** (eHealth)
    - ➤ tGov "Omsorgsteknologi" www.omsorgsteknologi.no
    - ➤ **CareTech** www.caretech.no
    - ➤ **GymTech** www.gymtech.no

3. **SmartGrid** (eEnergy)
    - ➤ **The new Vehicle in Smart Grid optimization** www.vsg.no
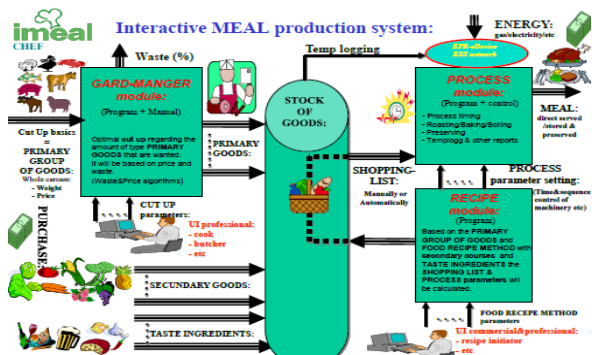
4. **SmartFarming** (eFood)
    - ➤ **Interactive Meal** www.imeal.no (iMeal Farm, iMeal Chef, iMeal POS)
    - ➤ **FishBizz** PSQA-monitoring & Sale of Fish products www.collbiz.no (CEN CWA 16597)

5. **SmartLearning** (eLearning) Distant Learning:
    - ➤ Norsk Maritim Skole www.norskmaritimskole.no
    - ➤ **CareTech** www.caretech.no

tGov Executive Team

Geir Lahnstein:

COB EPR-forum
BI Lecturer at Research Departments.
Author Health Management educational
books/compendiums.

Hans A. Kielland Aanesen:

Founder and CEO IT & Integration AS.
Founder and CEO EPR-forum. Co-founder Vitheia AS
Chair positions and contributor to OASIS TCs
Lecturing OASIS adaption Forum, IEEE conferences, BI etc

Eugen Rotariu:

Co-founder and COB Vitheia AS. (Integrasoft, IBS)
Lecturer Petru Maior University Mathematics & Informatics.
Author SW Languages books/compendium (Java, C++, etc)

Knut Yrvin:

Co-founder Skolelinux and has been Community
Manager at Qt Development Framework, Nokia and
later Digia. Now working with Smart Greenhouse
automation. Skolelinux is now a part of Debian Edu

Dag Asheim:

COB Skolelinux Drift, Director of R&D at TrendTech.
IT professional and successful entrepreneur.
Specialties: Free software, business strategy, finance

Open Industry standards
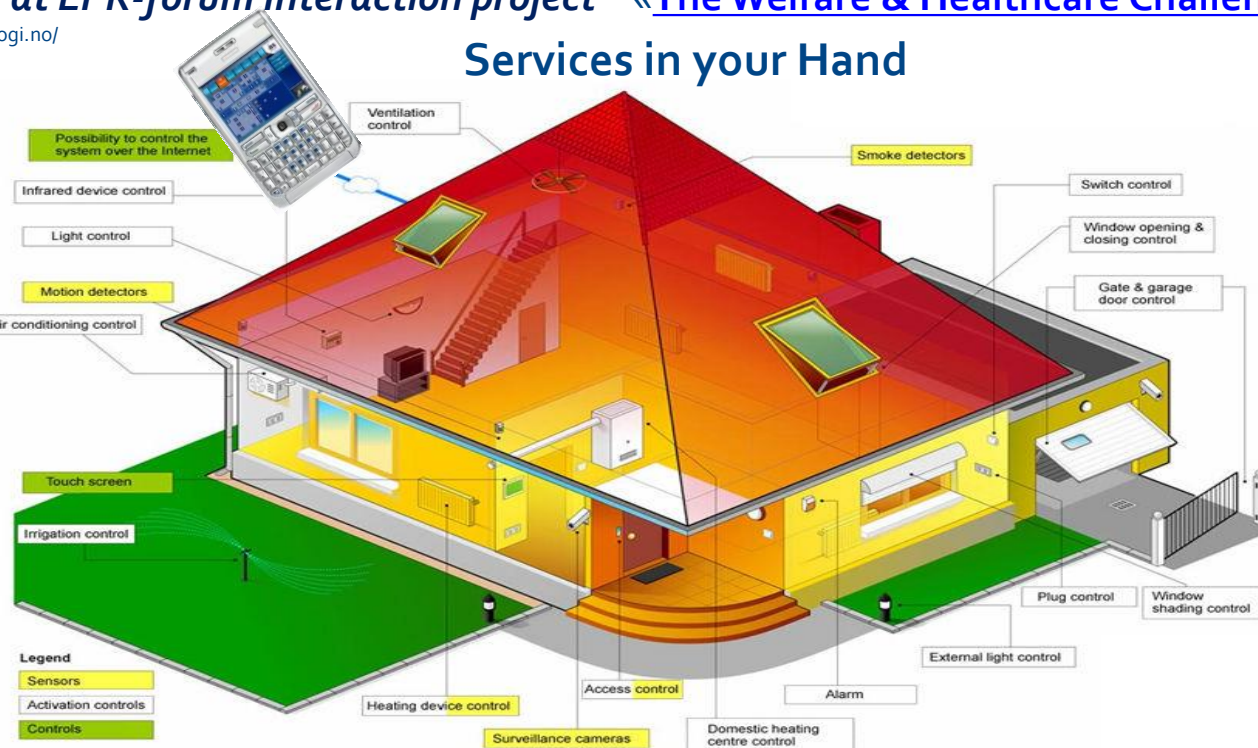© Copyright OASIS, 2014

OASIS

R&D Partners ?

Infrastructure owners in Fiber and 4-5G mobile (Telecom&Utility companies)

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Read more at EPR-forum Interaction project   «**The Welfare & Healthcare Challenges**»

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