

VistA and Personal Health Records

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Demo

Framing this Talk: Health \neq Healthcare

“..students of medical economics have long realized that what consumers demand when they purchase medical services are not these services per se but rather better health.” ^[01]

Family as the unit of care.

Live long and prosper; then check out quickly.

More healthcare for all is NOT scalable.

More health for all is very scalable.

From: “Let's improve the healthcare system for all.”

To: “A care system that improves the health of all.”

Open Personalized Health Informatics

Early-stage Florida-based bio-informatics startup.

Mission:

- help build a care system that enhances every family's health.
- reduce barriers to use vast health databases, publications, know-how
- empower consumers to leverage own ICTs.

Philosophy: Open Access; Open Code; Open Data.

Products and services:

- Free software for consumers to manage family's health
- custom development
- consulting, integration
- pre-loaded computers

About José C. Lacal:

- Technologist & Public Health Entrepreneur.
- 43 yr old; 21 yr IT exp.
- 3rd start-up; Fortune 50

How Would You Like a Colonoscopy?



Posted on Tue, Aug. 01, 2006

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Plan seeks better health

Pawlenty launches Q-Care to cut state, insurer costs

BY BILL SALISBURY
Pioneer Press

Gov. Tim Pawlenty on Monday announced a new program to provide "performance pay" to doctors and hospitals that meet new quality standards for state-purchased health care. He predicted the plan would save the state and health insurance companies more than \$150 million a year.



NEWSLETTERS

Commonwealth Fund Digest
Commonwealth Fund

Publications > In the Literature

How Much More Cost-Sharing Will Health Savings Accounts Bring?



Federal Diary

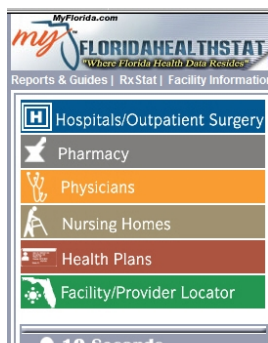
Stephen Barr, Columnist

Bill to Promote Electronic Health Records

By [Stephen Barr](#)

Thursday, March 2, 2006; Page D04

In an effort to dramatically expand the use of "electronic health records," a key House chairman said yesterday that he will propose legislation to promote their use in the federal employee health insurance program.



Consumers really want to reduce the odds of needing the procedure.

Summary of Nationwide Health Information Network (NHIN) Request for Information (RFI) Responses

June 2005

Healthcare-designed Automobiles

Listing of best
body shops in
your area.

Massive social
investments to
develop car
repair tools,
equipment.

Publish
guidelines for
evidence-based
vehicle repair.

Clearinghouse



Average cost of
car repairs across
state.



Posted on Tue, Aug. 01, 2006

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Plan

Pawlen

BY BILL SA
Pioneer Pre

Gov. Tim F
to doctors
care. He p
more than \$150 million a year.

Repair shops
would be
reimbursed even
if car is not fixed.

Insurer costs

to provide "performance pay"
for state-purchased health
with insurance companies



NEWSLETTERS

Commonwealth Fund Digest
Commonwealth Fund

All consumers
would pay the
same rate,
regardless of
driving record.

How Much More Cost-Sharing Will
Health Savings Accounts Bring?



Federal Diary

Stephen Barr, C

Bill to Promote I

By Stephen Barr
Thursday, March 2, 2006;

In an effort to dramaticall
ords," a
key House chairman said yesterday that he will propose legislation to
promote their use in the federal employee health insurance program.

Repair shops will
tout their
"Electronic Car
Record."

Summary of I
Information M
Request for Information (RFI)

Repair shops open
Mon-Fri, 09:00 to
17:00 hr. only.

Repair shops will
connect to a car-
RHIO.

Engineering-designed Automobiles

◀ Start Bosch

Automotive Technology

► Overview

Fields of application

- Safety
- Emissions
- Fuel consumption
- Driving pleasure

Subjects

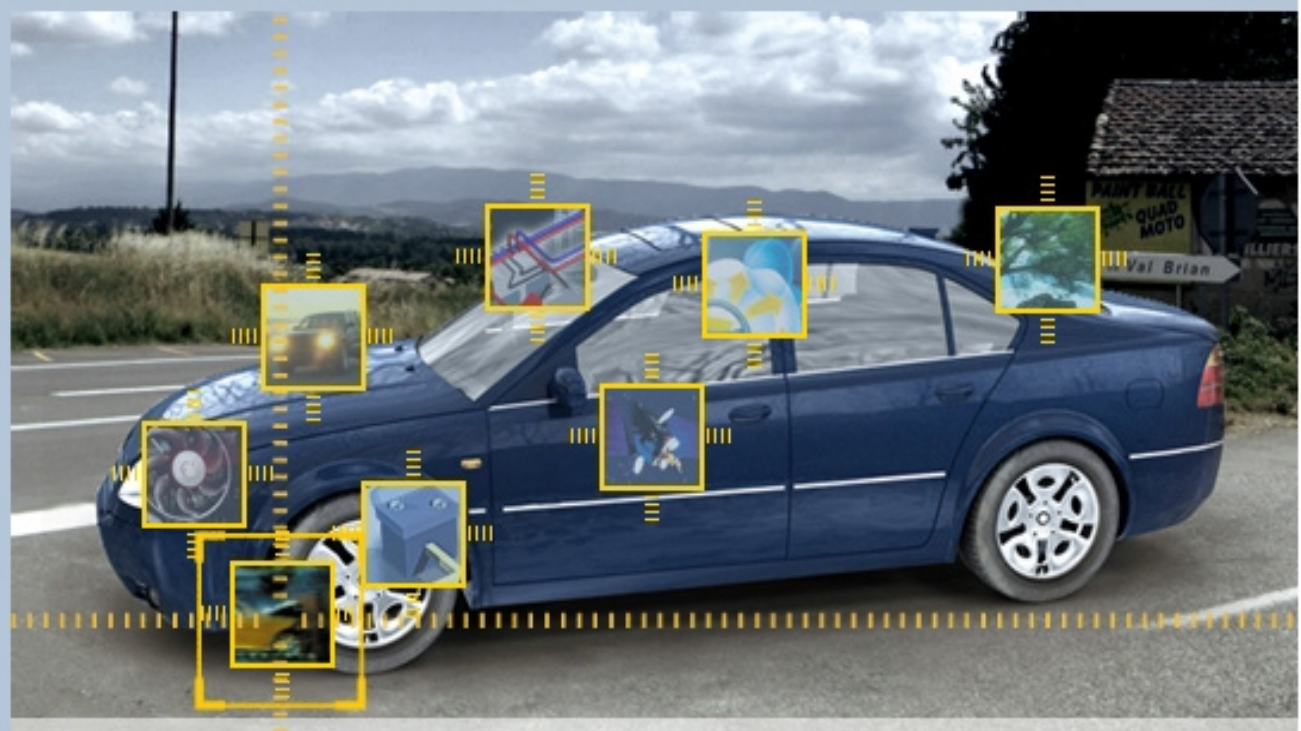
- Technical solutions for commercial vehicles
- Innovations yesterday and today

Service

- Trade Fair dates
- Information media
- Glossary
- Search
- Product overview

Company

- Automotive divisions
- Automotive Technology worldwide
- Locations worldwide
- Jobs and careers



Accident-prevention concepts

Steer, accelerate, brake, maintain an adequate distance to the next vehicle - our goal in the active safety sector is to apply pro-active vehicle-intervention technology to prevent accidents from happening. The ultimate objective is to develop a comprehensive assistance system that will provide the driver with the best possible information and support under any and all conditions.



Source: Bosch's website.

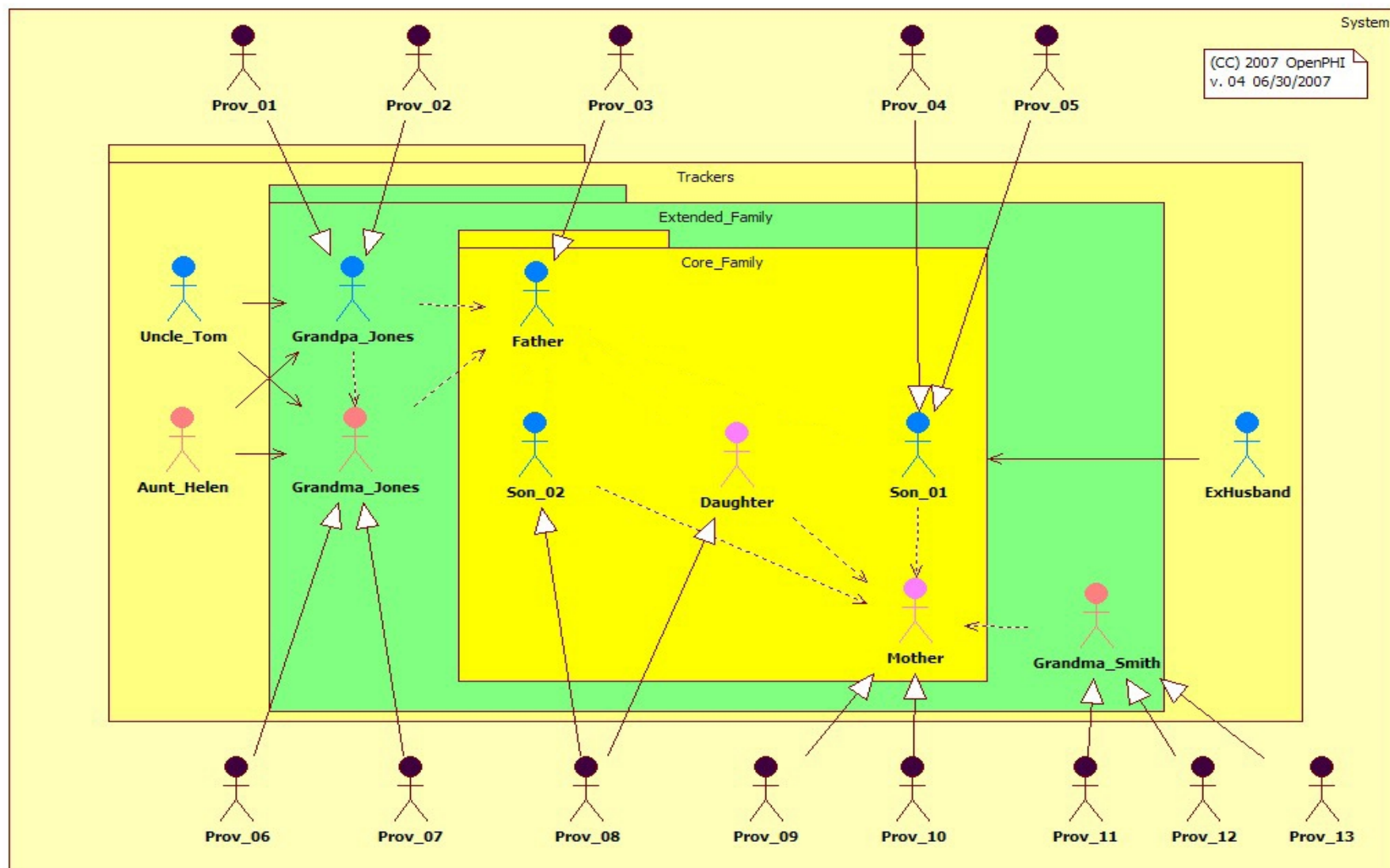
Why Personalized Health Informatics?

Consumers want control over health data: social and economic pressure

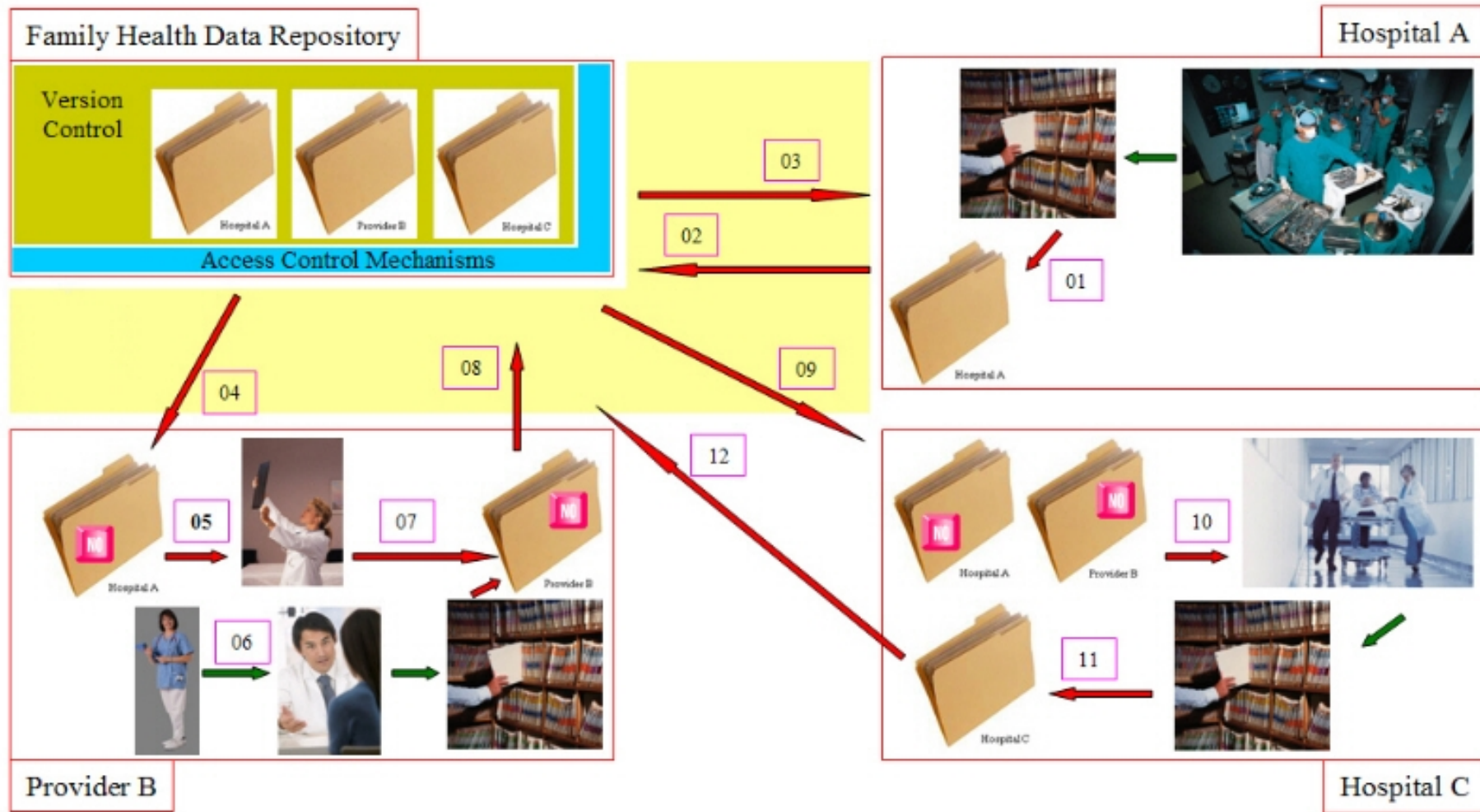
- less trust in providers
- need to improve healthcare's delivery systems, methods
- consumer-driven healthcare (HSAs)
- high-deductible plans
- care coordination for life-long chronic diseases

- **Consumers pushed to “own” their health data:**
 - few EMR deployments
 - privacy of outsourced health data processing
 - health data floating around (RHIOs) with no Consumer control
- **Need to migrate from a provider-centric model towards a Consumer-controlled model of health improvement.**

Family-Centered



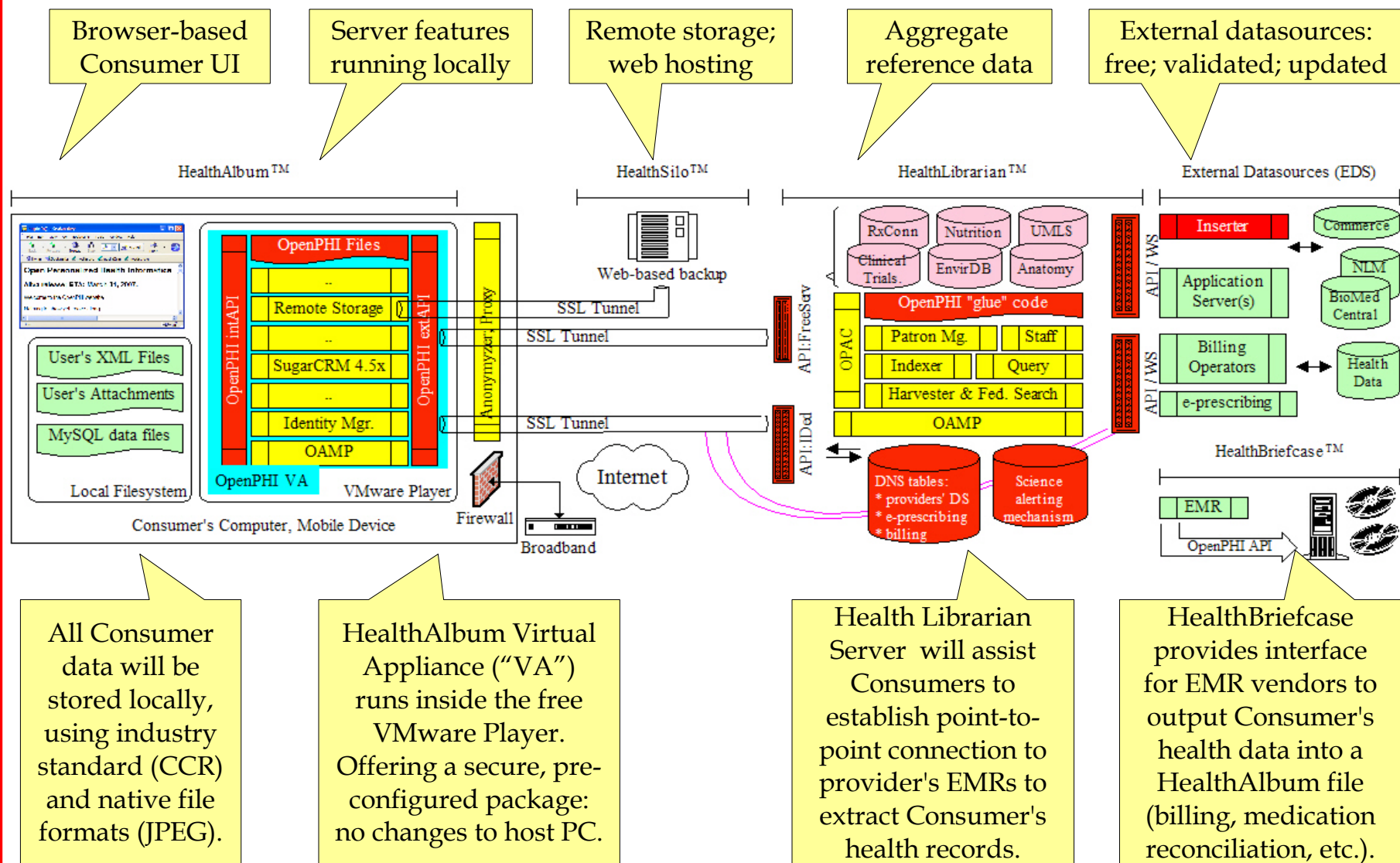
Consumer-Owned Health Data Ecosystem



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OpenPHI Platform



HealthAlbum™ CRM: Consumer Health

Customer Relationship Management (CRM):

- manage customers
- store proposals
- calls, meeting calendar
- tracks bugs, defects
- compile knowledge set
- archive e-mails, faxes
- analyze sales trends
- role-based access
- “Business Dashboard”

• HealthAlbum™ flips CRM for Consumers to:

- manage providers
- store health records
- appointments calendar
- track illness, treatment
- summarize literature
- archive e-mails, faxes
- analyze health trends
- need-to-know access
- “Health Dashboard”

SHORTCUTS

Create Contact

Enter Business Card

Create Account

Create Lead

Create Bill / Claim

Create Case

Report Bug

Schedule Meeting

Schedule Call

Create Task

Compose Email

NEW CONTACT

First Name:

Last Name: *

Phone:

Add Dashlets

MY CALLS

Close	Subject	Duration	Start Date	Start Time	Accept?
<input checked="" type="checkbox"/>	Call insurance co. for referral.	0h15m	2007-05-22	15:30	Accepted

MY MEETINGS

Close	Subject	Duration	Start Date	Start Time	Accept?
<input checked="" type="checkbox"/>	Take Mom to oncologist.	1h00m	2007-05-22	13:30	Accepted

MY ASSIGNED PRESCRIPTIONS

Number	Subject	Priority	Status
1	Antibiotics for Jimmy.	Medium	New

MY LEADS

Name	Office Phone	Date Created
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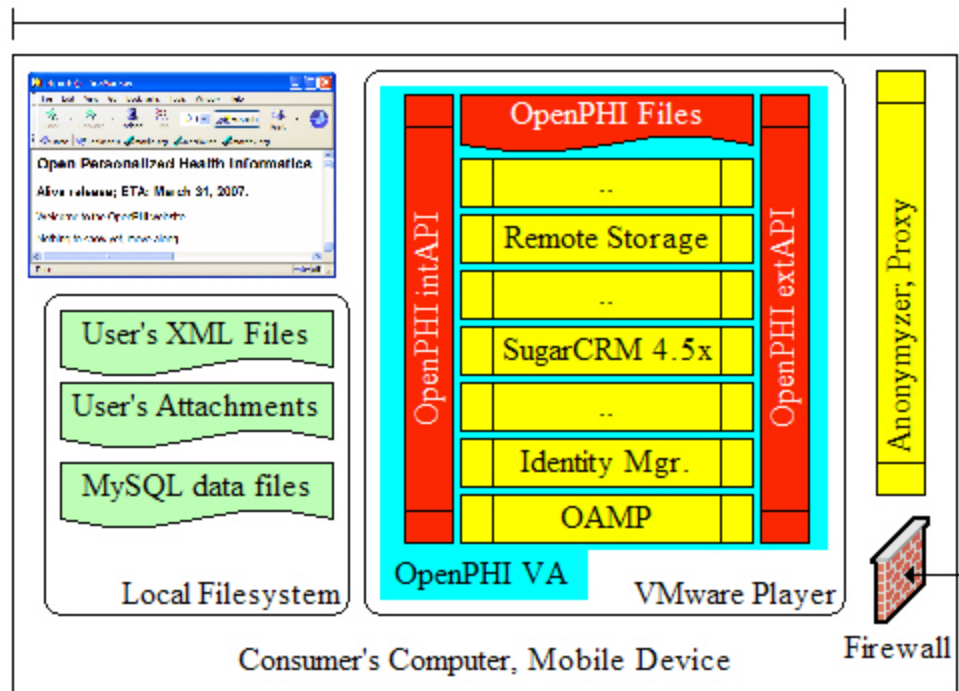
Prescription
usage listingManage, store
all documentsGlobal search function
across Consumer dataMulti user system,
role-based access
control mechanisms.Track illnesses,
treatment plans for
each family memberEasy access to
all functionalityReview guidelines,
Evidence Based Med.Manage providers
(physicians, clinics,
hospitals, specialists)Manage open bills,
reimbursements,
claims, deductibles

HealthAlbum™ Specs

HealthAlbum™

Virtual Appliance (“VA”):

- software “container” holds an operating system (OS) with no modification to PC
- VA holds complete server environment
- web browser interface
- Consumer data is also stored locally
- runs on older PCs
- multiple languages



Benefits:

- total consumer control
- high security, privacy
- portable, persistent
- improve health, healing

B

HealthAlbum™ vs. Other PHR Offerings

	Government (Veterans Adm.)	Provider (Hospital)	Employer (Dossia)	RHIOs	Insurance Company	Private, Web- based PHR	HealthAlbum
Consumer data ownership	NO	NO	NO	NO	NO	Mostly	YES
Consumer controls access, usage	Limited	NO	Limited	NO	NO	Mostly	YES
Longitudinal	Limited	NO. Consumers change providers as needed.	NO. Consumers change employers often.	NO. Consumers move city to city, state to state.	NO. Consumers change ins. cos. often.	YES	YES
Hosting service provider has Consumer trust.	NO	Some	Limited	None	Limited	Questionable	YES
Guarantees no secondary data usage w/o opt in	NO	NO	NO	NO	NO	Varies	YES
Designed for use while protecting Consumer's anonymity.	NO	NO	NO	NO	NO	NO	YES
Consumer controls where data is stored.	NO	NO	NO	NO	NO	NO	YES
How are the costs of the hosting service paid for?	Taxes.	Fees; revenue from data sales.	Unknown.	Fees; ads; revenue from data sales.	Unknown.	Fees; ads; revenue from data sales.	No cost (your own PC)
Can Consumer move data to another hosting option?	Unknown.	Maybe.	Maybe.	NO.	NO.	Maybe.	YES
Anonymous usage? (Consumer does NOT need to set up an account, and no need to log in.)	NO	NO	NO	NO	NO	NO	YES
Software's source code freely available under GPL for inspection, security audit?	NO	NO	NO	NO	NO	NO	YES
Software's source code available under GPL for modifications, improvements, customizations?	NO	NO	NO	NO	NO	NO	YES
Is Consumer data stored in industry-standard formats?	Maybe	NO. Proprietary EMRs.	Unknown.	NO. Proprietary EMRs.	NO.	Maybe.	YES

Why EMR <=> PHR? Ride Wave.

Providers' Obligations:

- a.) HIPAA Compliance**
- b.) Medication
Reconciliation**
- c.) Liability Reduction**

EMR Vendors' Must:

- a.) Customers' Looking for
lower/no Vendor Lock**
- b.) CCHIT Certification**

JCAHO – Medication Reconciliation

"Reconciliation is the process of comparing what medication the patient is taking at the time of admission or entry to a new setting or level of care, with what the organization is providing (admission or new medication orders) to avoid errors such as conflicts or unintentional omissions."

JCAHO's National Patient Safety Goals for 2007, which includes #08a:

"The complete list of medications is also provided to the patient on discharge from the facility."

http://www.jointcommission.org/PatientSafety/NationalPatientSafetyGoals/07_npsg_facts.htm

Liability Reduction

HealthAlbum™ Usage:

- provide electronic copy of all data collected during treatment / stay
- data visibility reduces anxiety, doubts
- greatly facilitate follow-up treatment at same, or any other provider
- Consumer is provided with tools, knowledge for self-care

Benefits to hospital:

- leave Consumer with a positive feeling about the care they received
- higher transparency => reduced liability risks
- reduce paperwork, errors transferring to other provider(s)
- Consumer in charge of own health: improve outcomes, lower costs

CCHIT Cert. for EMR Vendors

CCHIT Ambulatory Functionality Criteria 07

Item 22:

“The system shall provide templates for displaying medical summary data in a structured format”

“Examples might include the continuity of care record or the CDA. This requirement does not specify a particular format although many vendors will choose to use the harmonized CCR/CDA/CRS once available.”

DEMO

Credits:

- * Nancy Anthracite (VistA install instructions)
- * Kevin Toppenberg (XML export utility)

More Information

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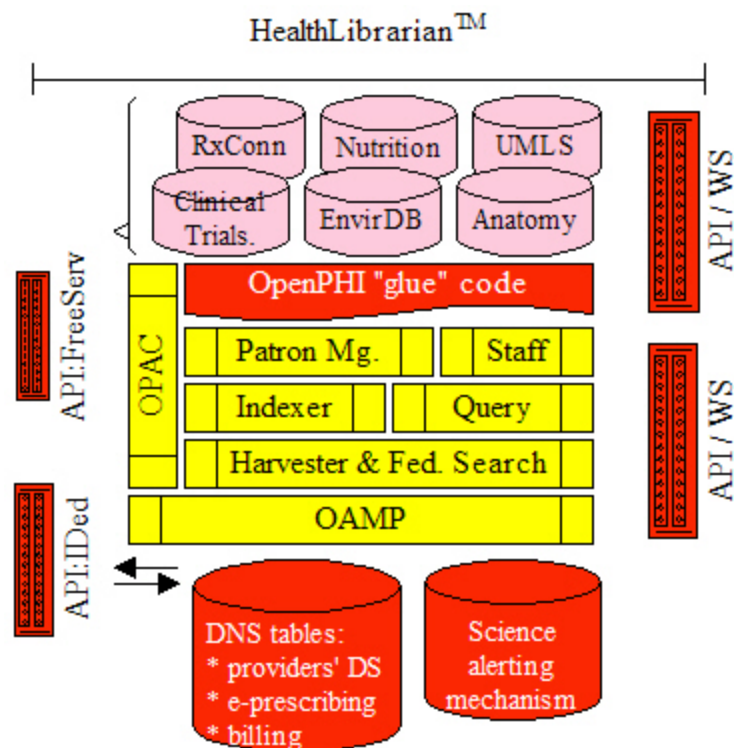
HealthLibrarian™

Search, indexing server to access 100s of peer-reviewed, health-related databases, publications.

Provides Consumers with accurate, and context-relevant quality data.

External Datasources:

- Guidelines Clearinghouse
- ClinicalTrials.gov
- more (100s) soon



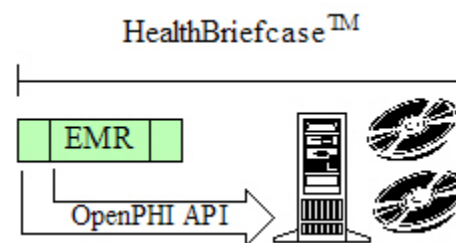
HealthBriefcase™

EMR outputs Consumer's data to portable media (CD/DVD, USB drive)

Consumer will load media into HealthAlbum™ at home to centralize data.

Benefits to providers:

- medication reconciliation
- liability reduction
- improve Consumer satisfaction and loyalty



Value to EMR vendors:

- Help clients address Consumer's health data requests (HIPAA)
- Input Consumer's data into EMR, digitally