

# Scotland's eHealth Architecture

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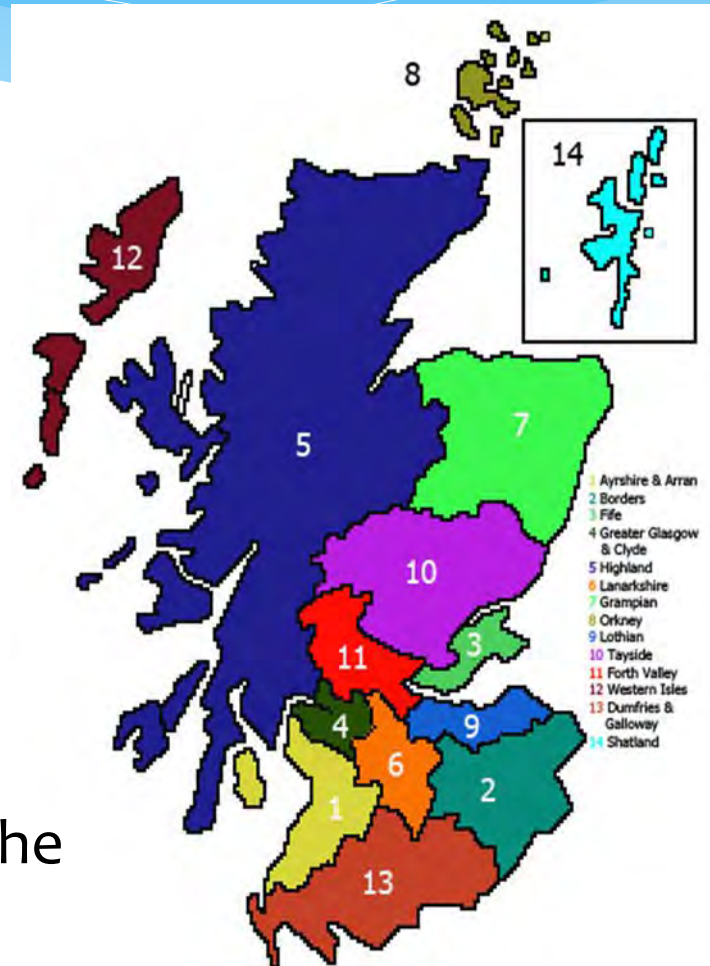
Enterprise Architect: Data Sharing

Scottish Government

E-Health

# NHS Scotland's connected IT Infrastructure

- \* 14 geographical Health Boards
- \* 7 special Health Boards
- \* 228 Hospital sites
- \* 980 General Practices
- \* 960 Dental Practices
- \* 1,253 Community Pharmacists
- \* Over 500 other sites including optometrists, clinics, data centres and administration sites
- \* Over 3000 NHS Sites connected to the SWAN network



# New Digital Health and Social Care Strategy will seek to...

- \* Move from organisational-centred developments and architecture to placing the citizen at the centre
- \* Make better use of data – both health & social care and citizen-generated – for decision support, service delivery, planning and research
- \* Start to develop digital ecosystems around the individual, home & place

# Architecture Vision 2016 -



Healthcare professionals



Citizen



Social Care Practitioners

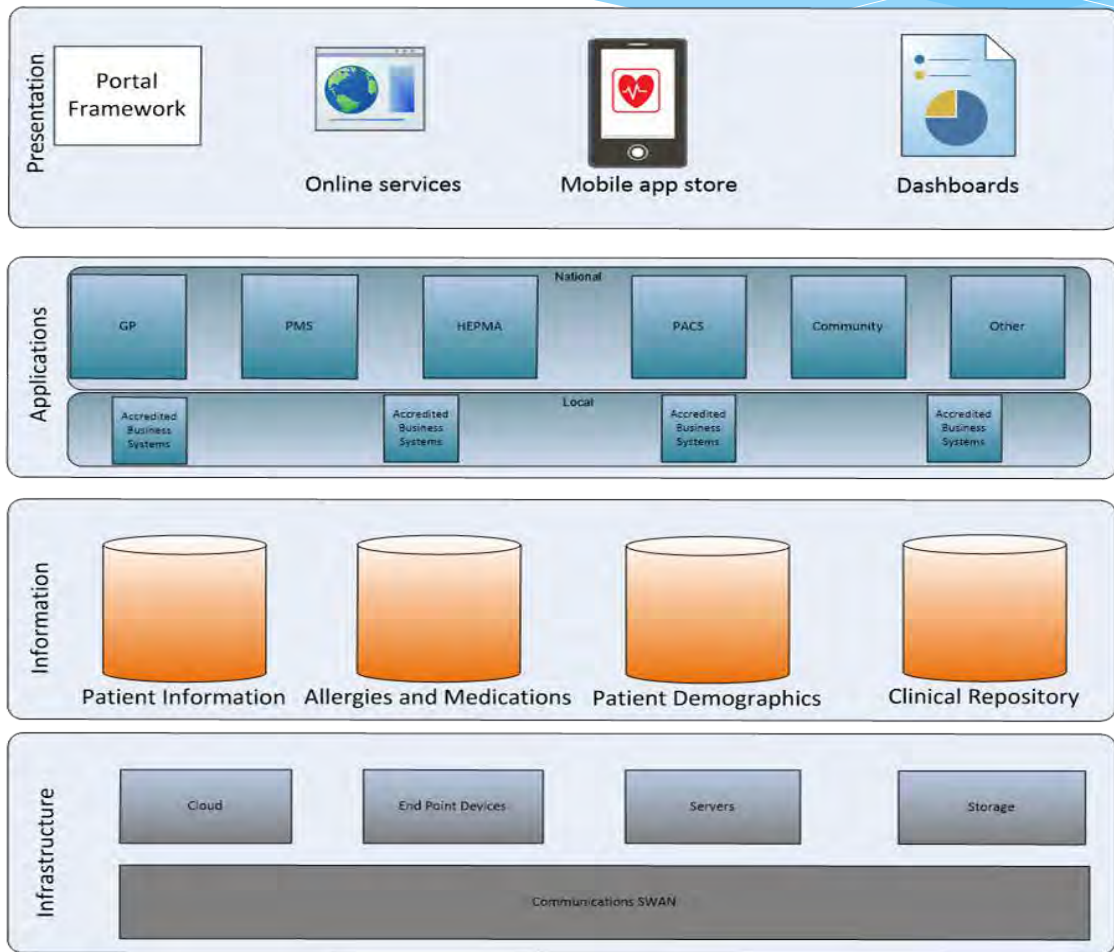


Other Organisations



Research

Security and Identity Management



Integration Platform

Interoperability

The Integration Platform and Interoperability components include:

- Integration Hub
- workflow
- RLS (Role-Based Access Control)
- EPR/PHR (Electronic Patient Record/Personal Health Record)
- Document Transfer
- Clinical messaging standards

# Foundations of eHealth in Scotland

Integration and messaging tools  
(Ensemble, SCI Gateway...)

Information summaries  
(ECS/KIS, Clinical portal...)

Patient facing platforms  
(telehealth and telecare, Patient portal ...)

Core operational systems  
(Hospital PMS, GP systems, national PACS, screening systems...)

Data repositories  
(SCI Store, ECS, CHI demographics, Data Warehouses ...)

Infrastructure for intelligence, innovation and research  
(NSS, Farr, ICs, Safe Havens ...)

Secure national digital network (SWAN)

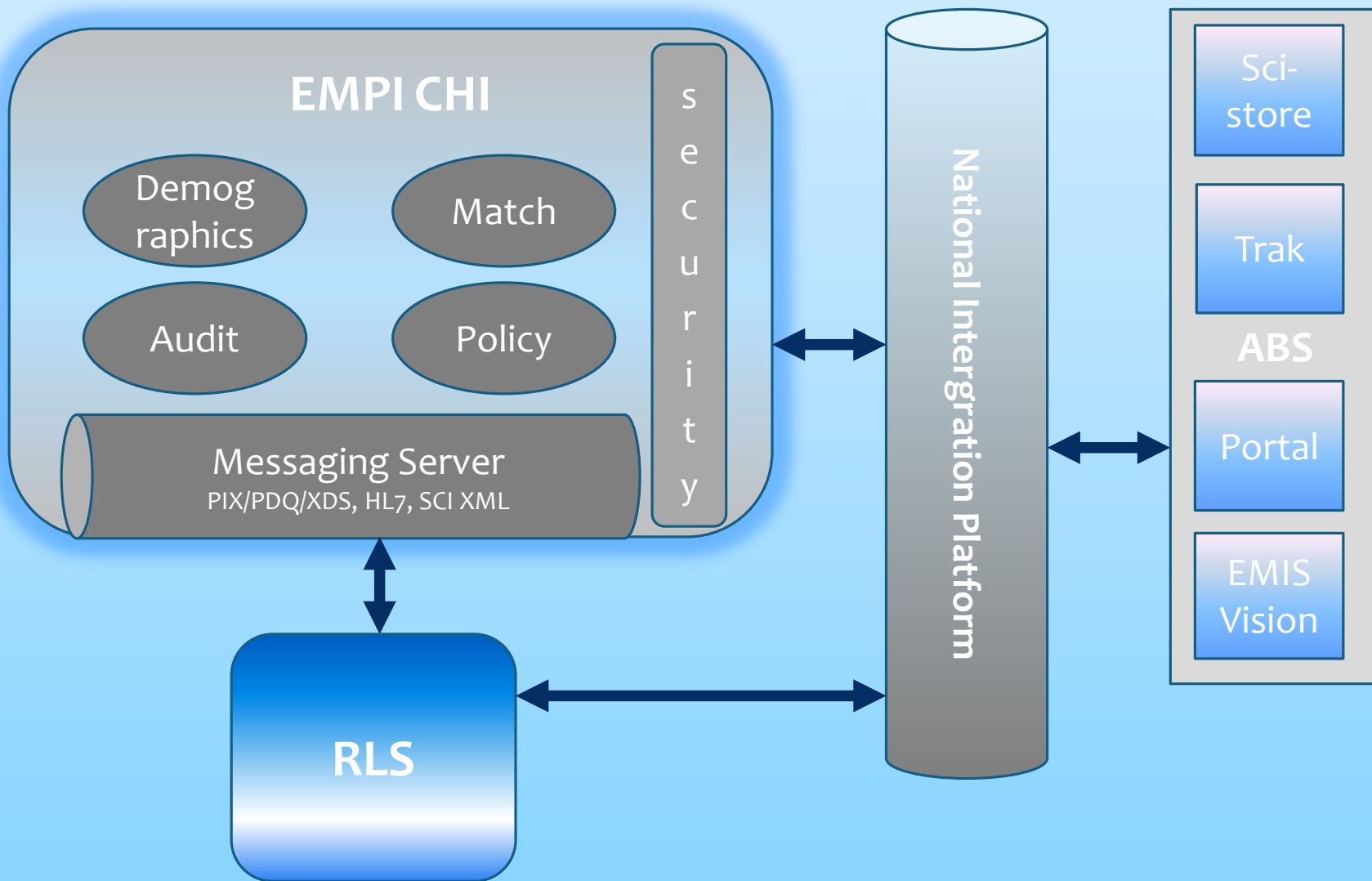
Unique patient identifier (CHI)

Information Governance structures and guidance

# Interoperability

- \* International Standards – HL7, FHIR, IHE
- \* APIs – standardise (GP summaries, authentication, appointment booking)
- \* Agree a set of national open API for device connectivity (demographics, medications, documents, diary events)
- \* Semantic layer – terminology service to agree data definitions
- \* Messaging approach – batch/real-time
- \* Services supporting platform messaging (broker/notification)
- \* Flexible architecture to respond to different Information Sharing needs

# CHI



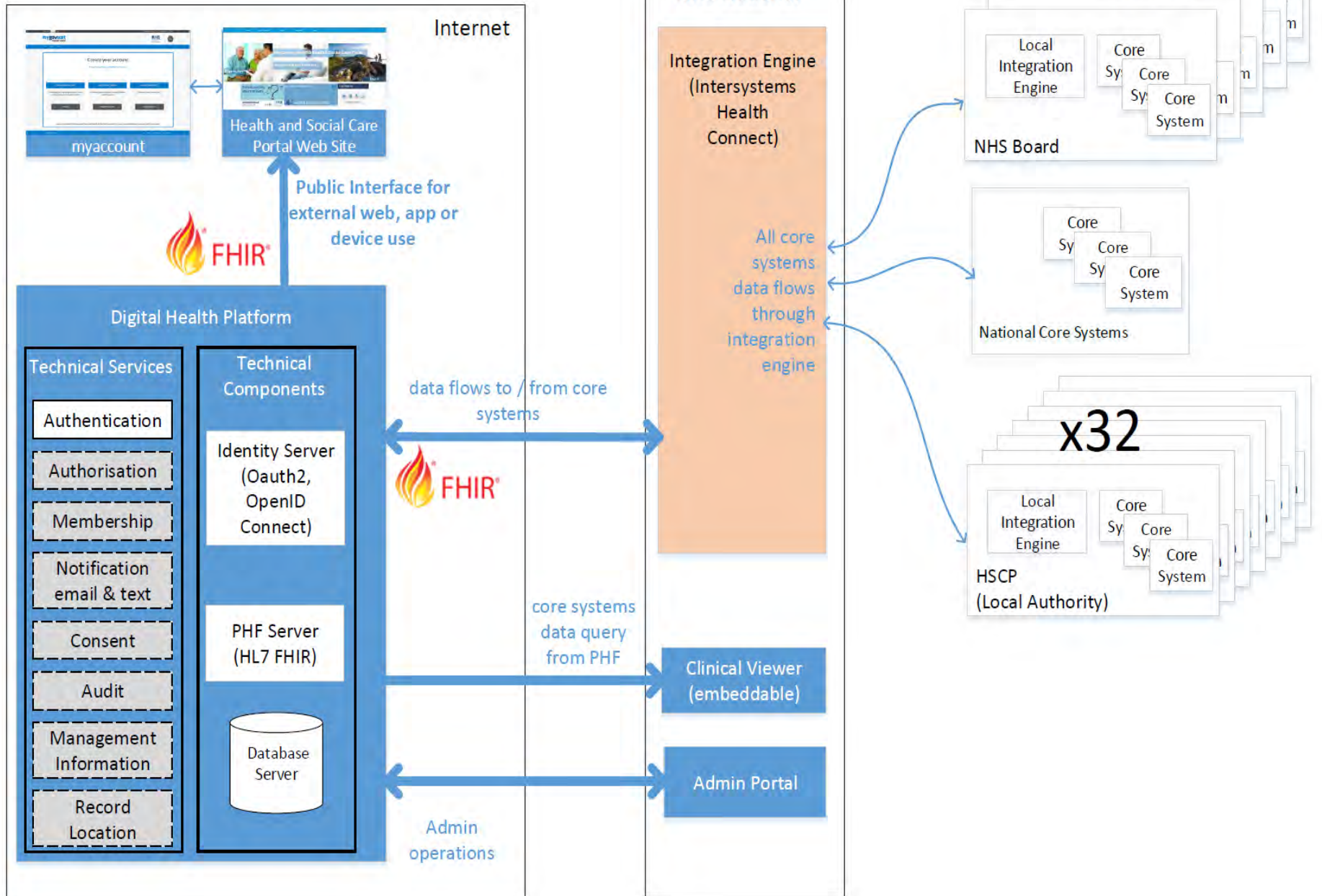


# Patient Portal - Principles

- \* The following principles have been agreed to underpin the development of patient portal in Scotland.
  - \* We will do this **once for Scotland**.
  - \* People will have the **same user experience regardless of where they live**.
  - \* The same baseline services will be offered to everyone and **expanded incrementally over time**.
  - \* **MyAccount** will be used for user authentication.
  - \* Information will be **standards-based** to allow re-use.
  - \* People will be able to sign up to and access more personalised and disease-specific services/information as this capability develops.
  - \* People will be able to provide information and contribute to their record as this capability develops (this includes telehealth sources).



National Health and Social Care Patient Portal  
Solution Concept Diagram v1.0



# Key messages

- \* The digital landscape is complex and highly distributed – not one organisation but many
- \* Health and care services are under intense time and cost pressure – innovations need to add maximum value for minimum effort and cost
- \* Solutions must bring a fresh approach to the problem, not ‘just another app’...
- \* Open standards – device agnostic, platform agnostic...

# Thank you

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