



# ITK and beyond

moving from send to share

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# Agenda

**What can the ITK do today?**

**Sharing capabilities you might not know about**

**Potential future state architecture**

**Potential roadmap**

**There is nothing revolutionary  
in the following slides ...**

**... just simple, well understood  
integration patterns that we  
should apply to the federated  
NHS estate**

# Foundation for interoperability

**Identity** – reliably link the data to the patient

**Architecture** – supporting shared care

**IG** – security, data sharing agreements, consent

**Serialisation** – simple and safe data exchange

**Community** – online resources, this forum etc.

**Accreditation** – simple, recognised process.

# Foundation for interoperability

**Identity** – reliably link the data to the patient

**Architecture** – supporting shared care

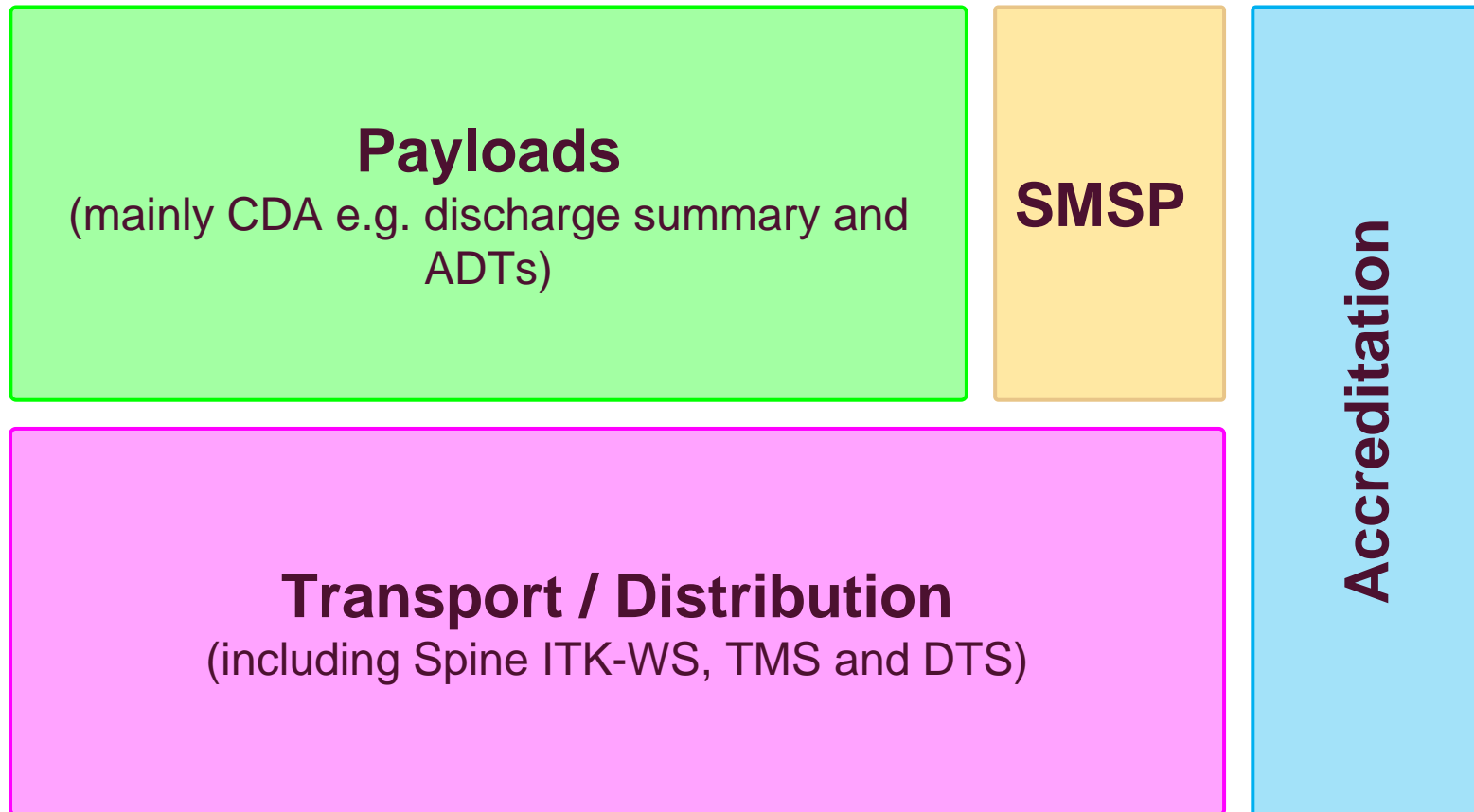
**IG** – security, data sharing agreements, consent

**Serialisation** – simple and safe data exchange

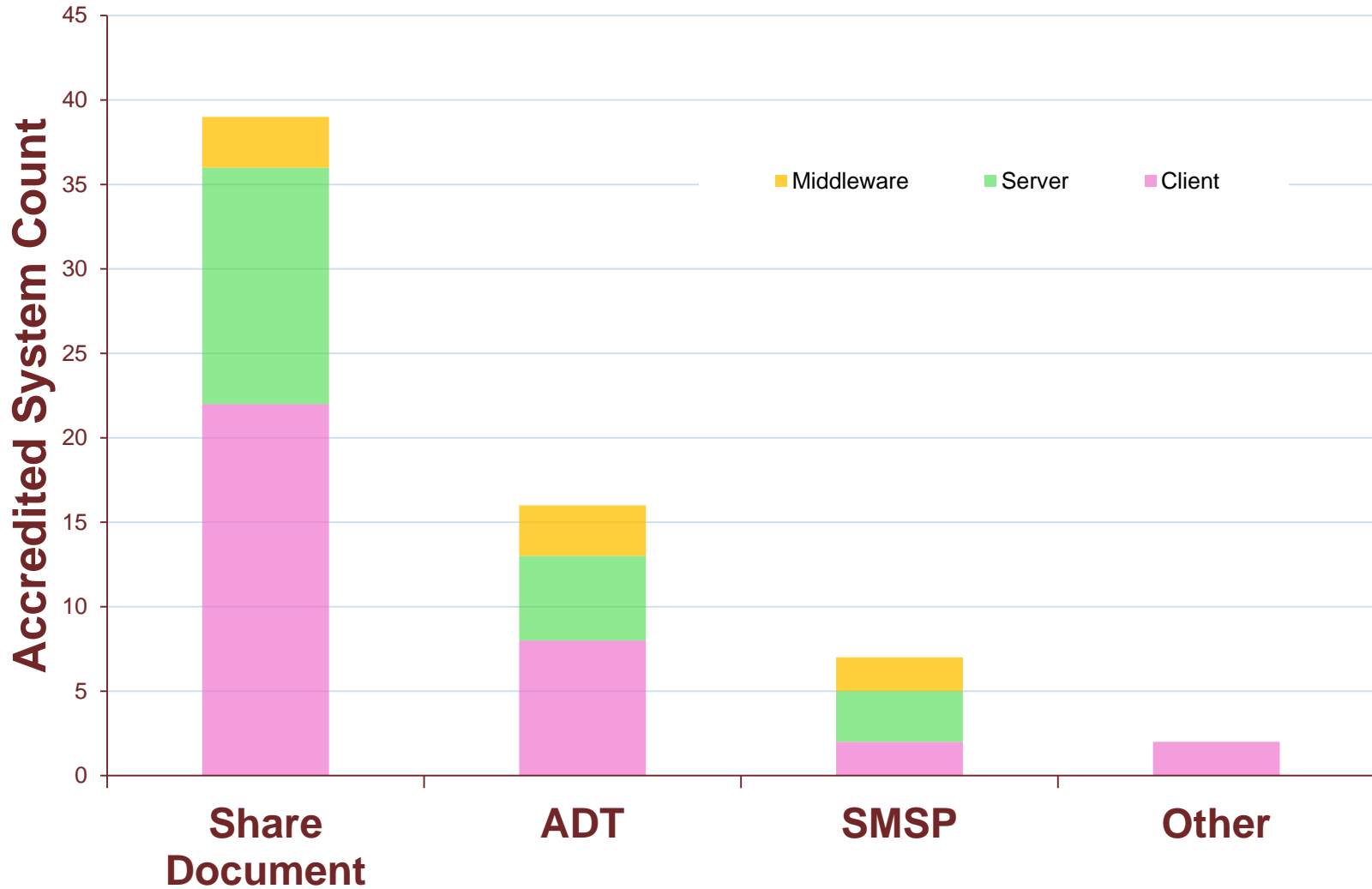
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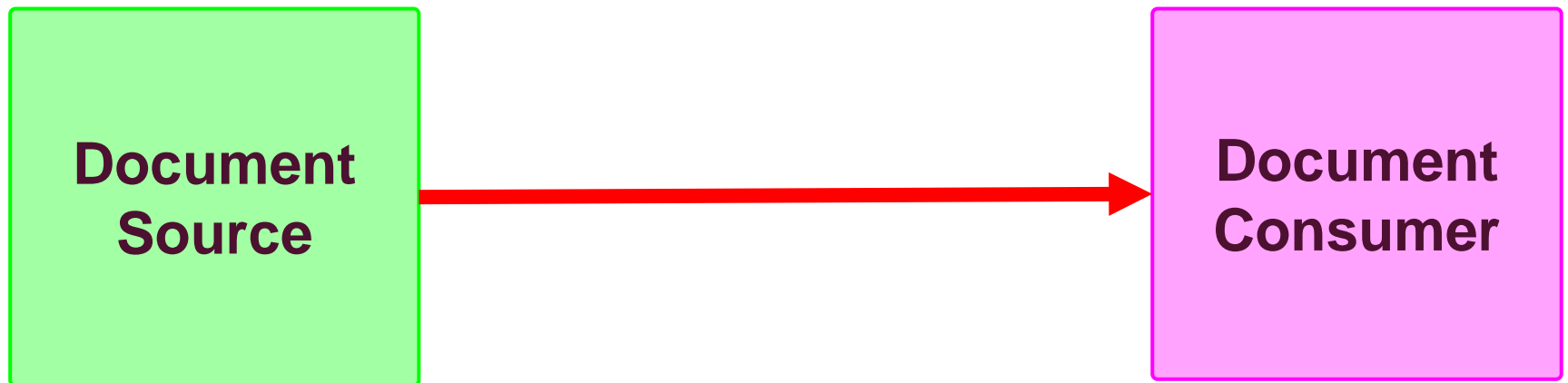
# What can the ITK do today?



# Accredited systems (January 2014)

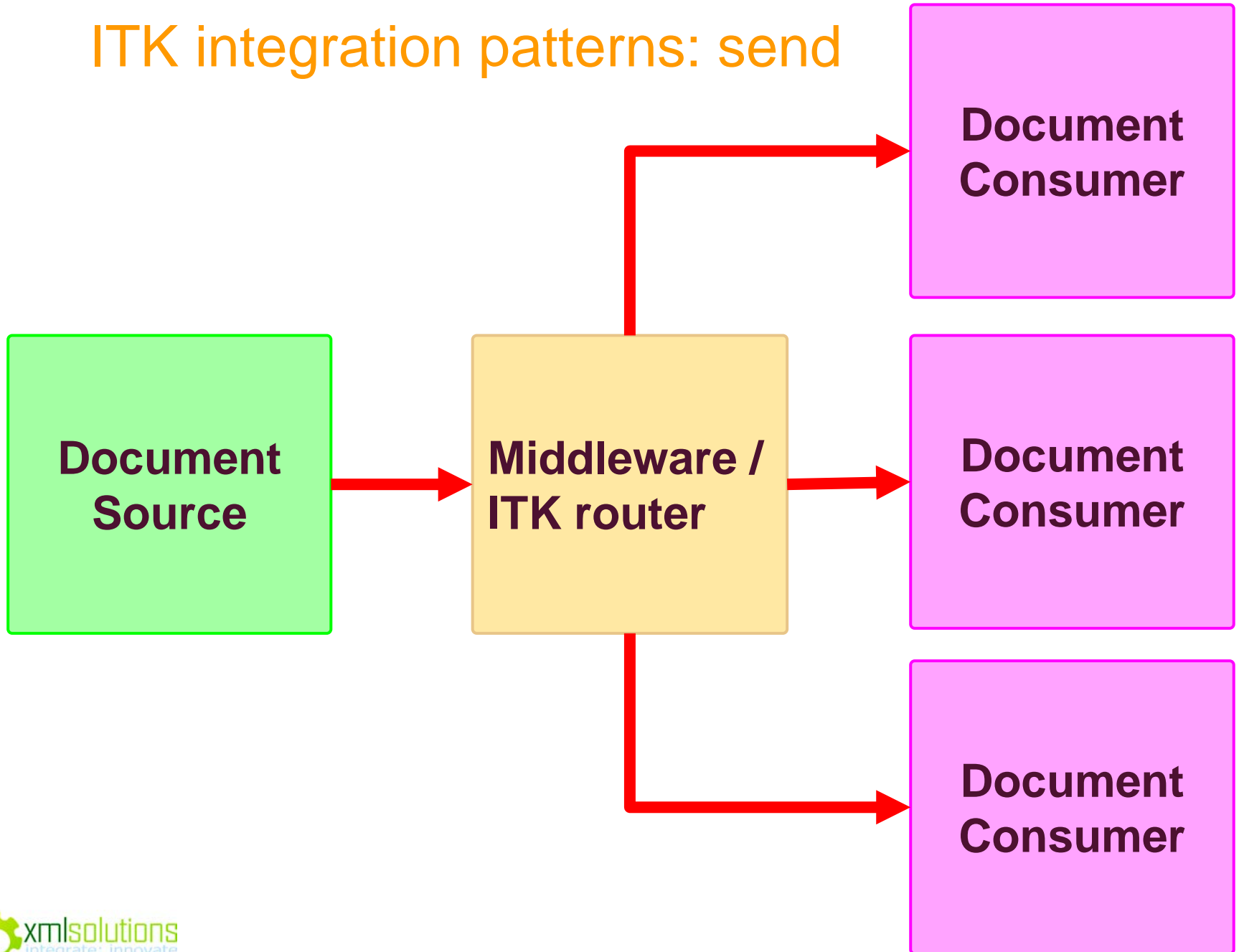


# ITK integration patterns: send

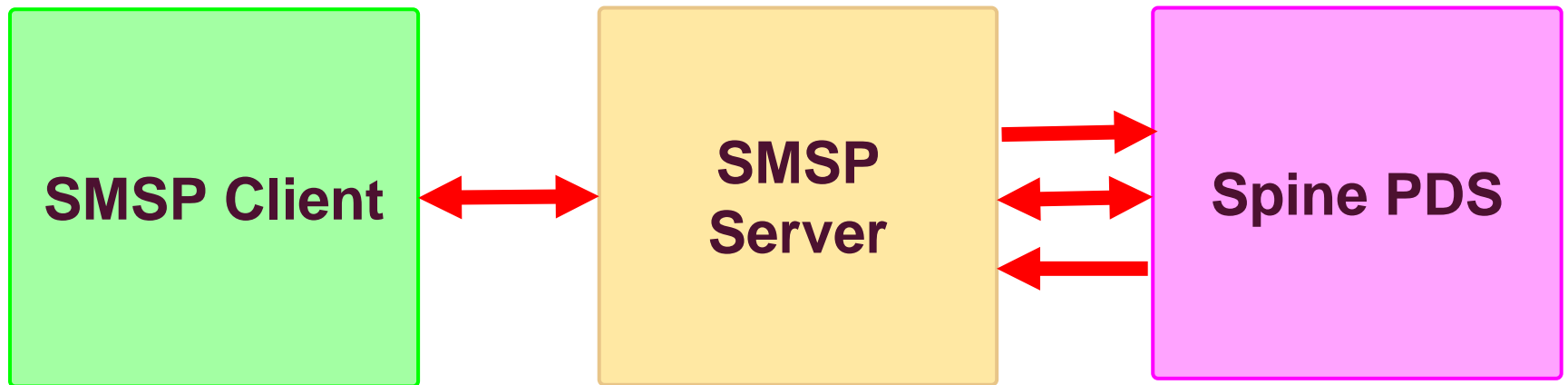




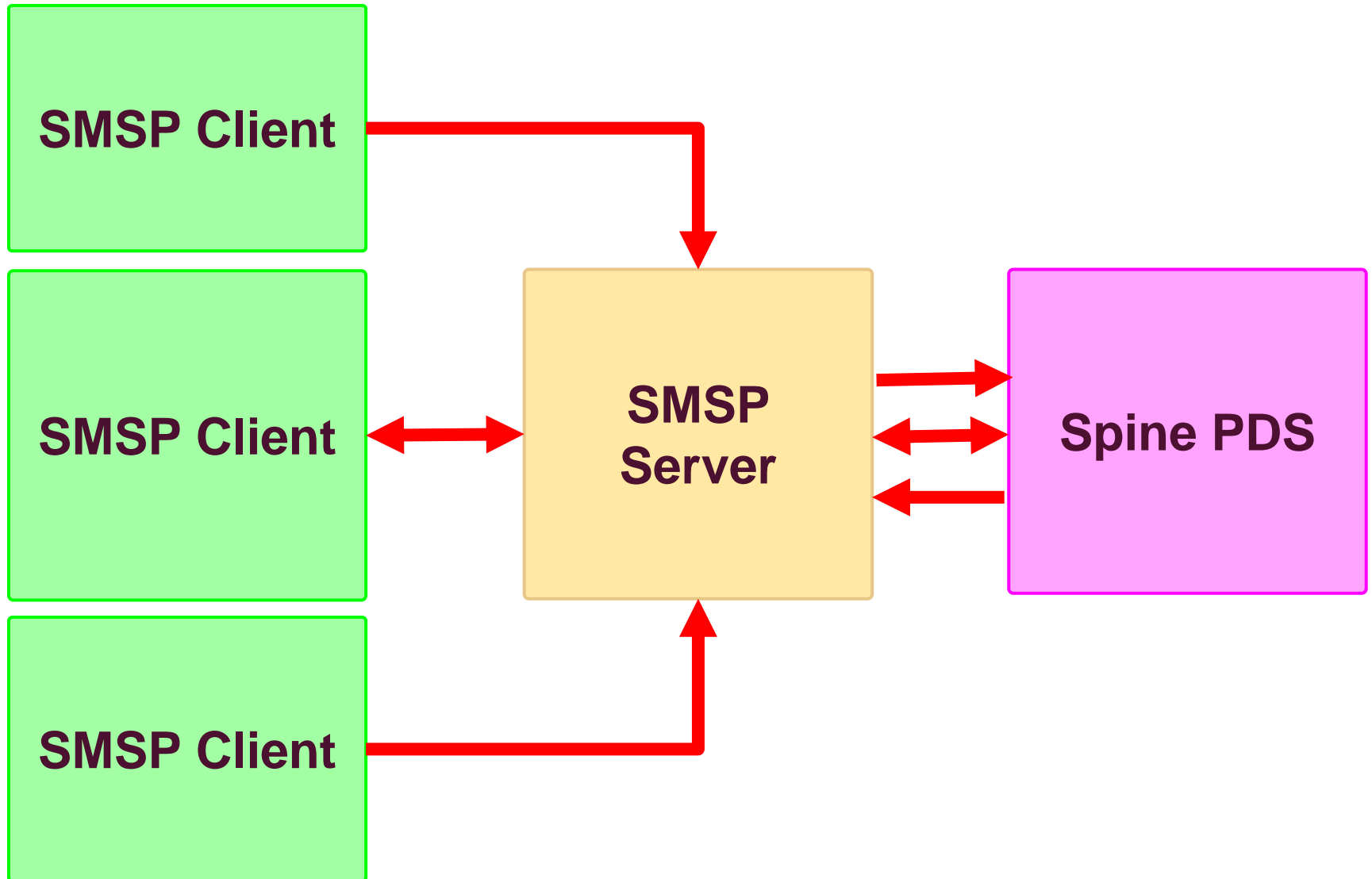
# ITK integration patterns: send



# ITK integration patterns: SMSP



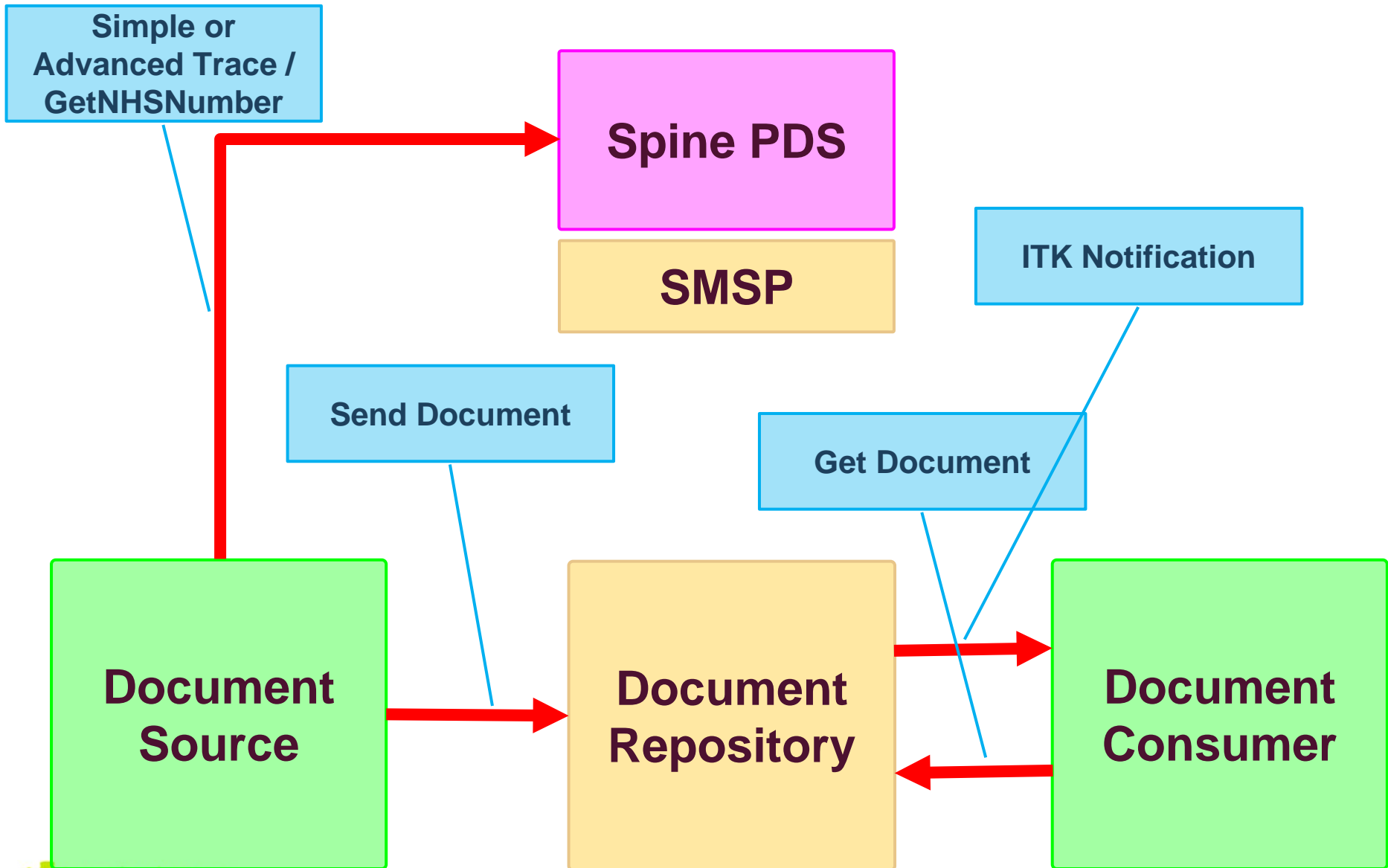
# ITK integration patterns: SMSP



# ITK Capabilities you might not know about ...

**Use case:** Single (document) resource shared between multiple organisations and care settings – e.g. shared care plan

# ITK integration patterns: Put, Notify and Get



# ITK Notification

Logical Item	Description	Examples
<b>Event Meta Data</b>	Event Time Event type Event Subtype	3 <sup>rd</sup> Feb 2014 10:30 Document Event (also Encounter, Admin) Document Created (Updated, Nullified)
<b>Patient</b>	Name Gender NHS Number Address  Birth	John Smith 1 (Male) 9407807541 62 GARRETTS GREEN LANE BIRMINGHAM B26 2HN 9th May 1988
<b>Originating System Details</b>	ASID or locally defined	ASID or locally defined
<b>Performer / Contact</b>	Clinician/Carer Represented Organisation	Dr. Smith St. Elsewhere's Hospital
<b>Document Details</b>	Document Type Document Identifiers Profile Id Format	End of Life Care Coordination Summary 7302EF78-7531-473B-A5E9-DBBC0BBC5D10 urn:nhs-en:profile:EndofLifeRecordCDADocument-v1-0 text/xml
<b>URL</b>	Fully resolved URL for Get	<a href="https://clinical-repo.nhs.uk/docs/?id=7302EF78-7531-473B-A5E9-DBBC0BBC5D10">https://clinical-repo.nhs.uk/docs/?id=7302EF78-7531-473B-A5E9-DBBC0BBC5D10</a>

**Natural evolution ...**

**Personal viewpoint – although  
not exclusively my thinking**

# What architecture are we aiming for?

**SOA based / federated** – mirrors NHS IT / Orgs.

**Simple** – minimise technical barriers

**Leaves data at rest** – where possible

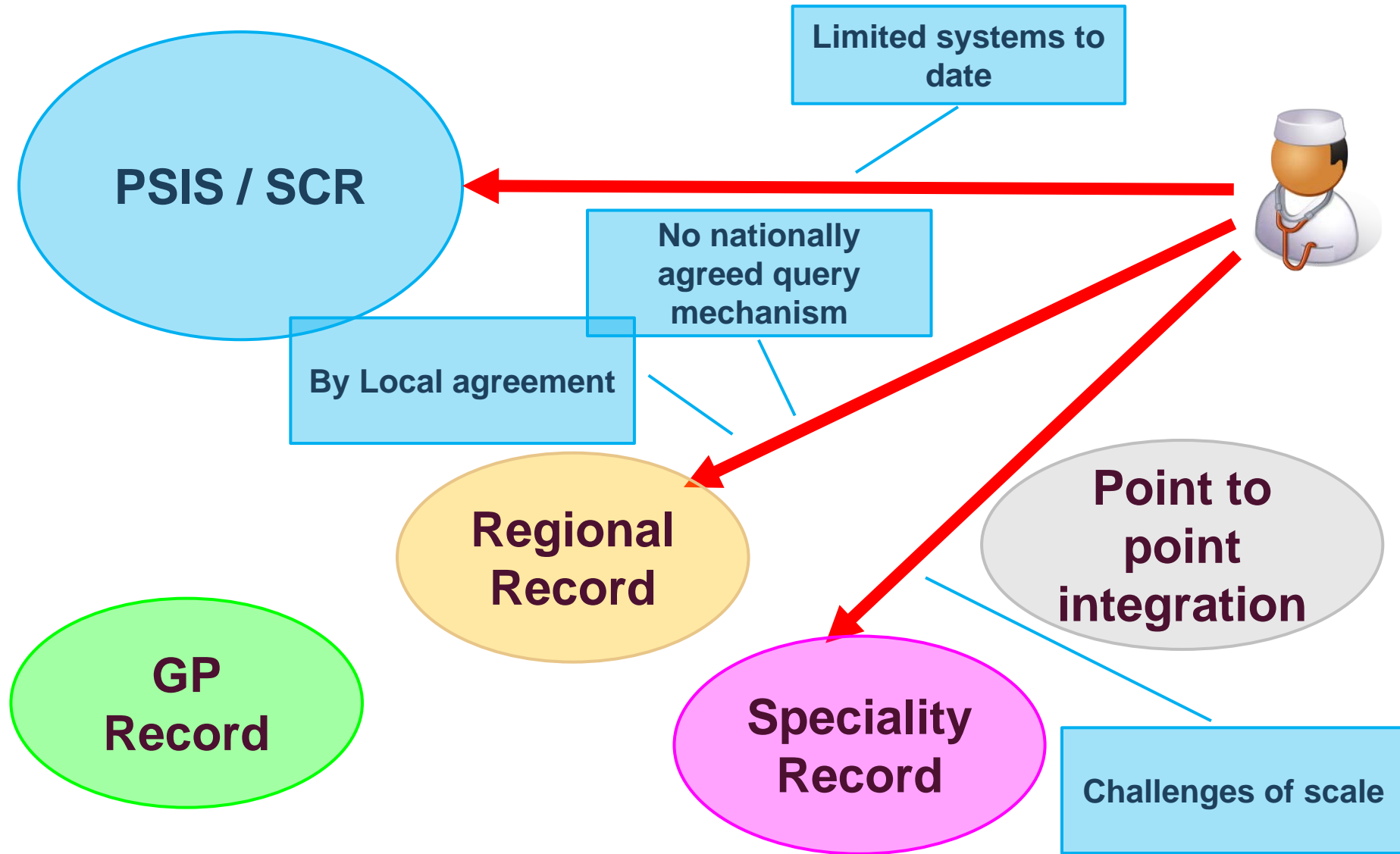
**Supports varying maturity** – provides value early

**Choreographed** – mirrors NHS business process

**Large number of use-cases** – maximum benefit

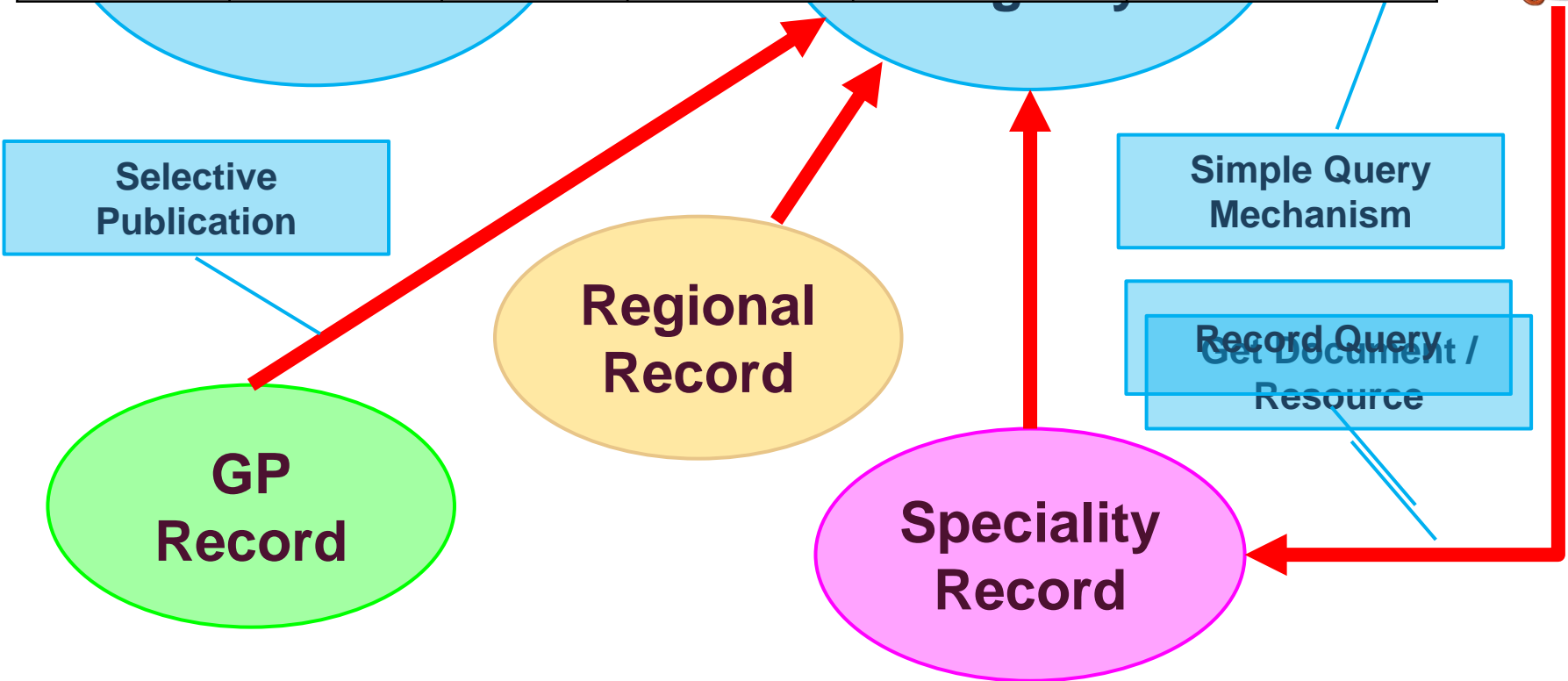


# Current NHS Landscape for sharing

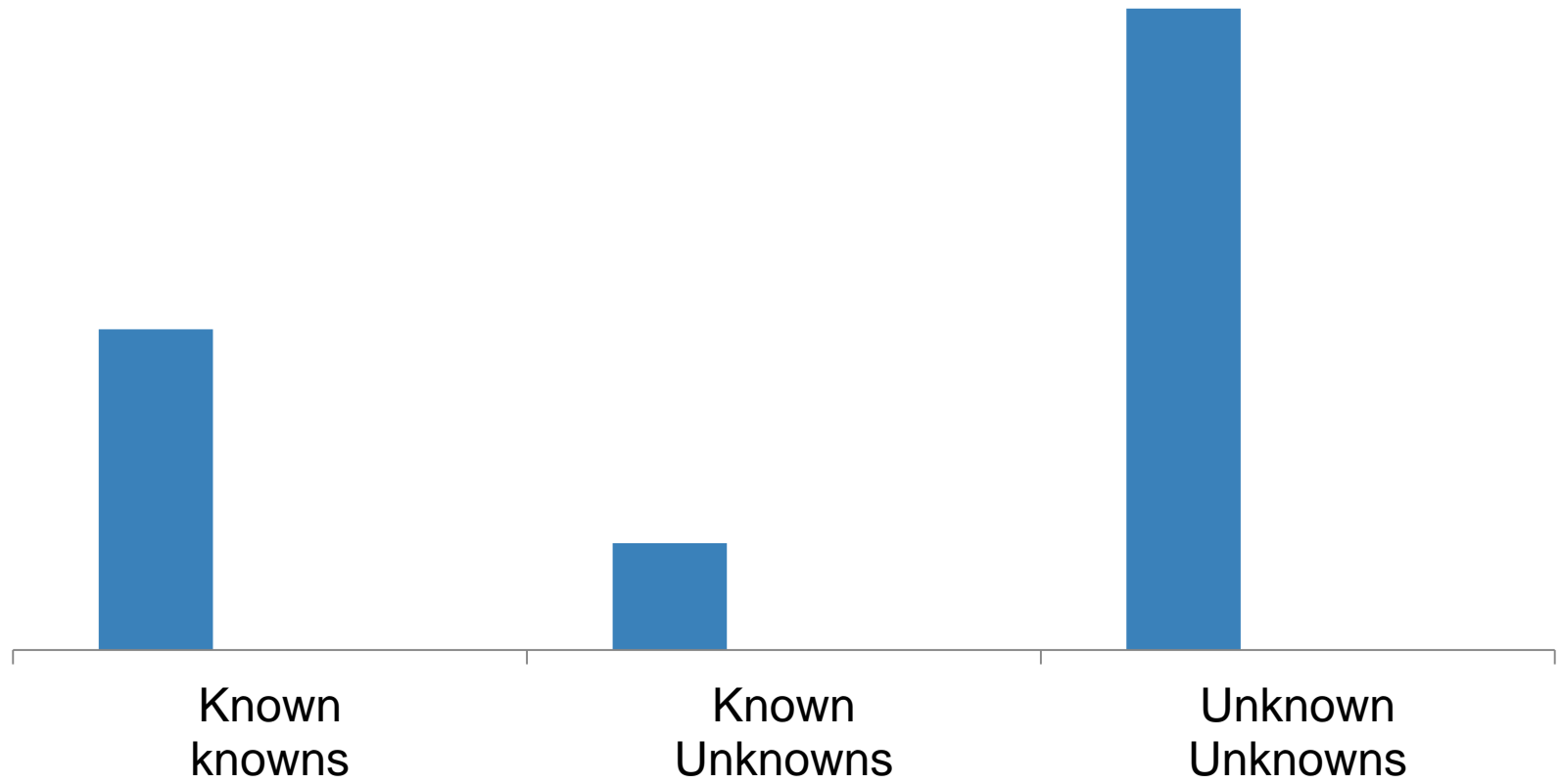


# Suggested future NHS Landscape

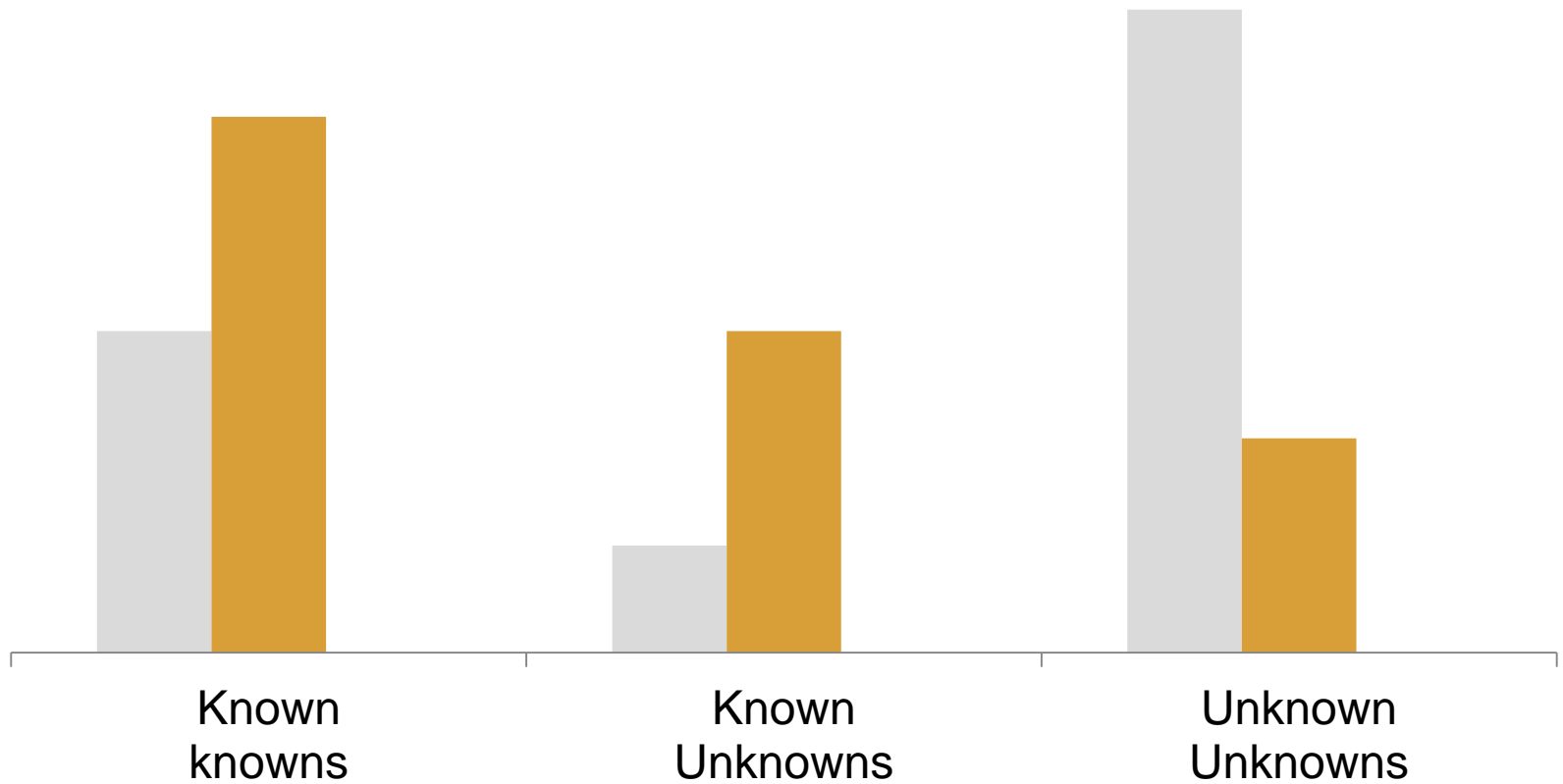
NHS Number	Modified	System	Org	Query Mechanism	URL
9407807541	14 <sup>th</sup> Oct 2010	SCR	HSCIC	Spine-EIS	https://spine/psis
9407807541	20 <sup>th</sup> Jan 2014	Regional Record	A trust	IHE-XDS	https://lcr/patientquery
9407807541	3 <sup>rd</sup> Feb 2014	GP System	GP Surgery	FHIR	https://gp/surg/patient



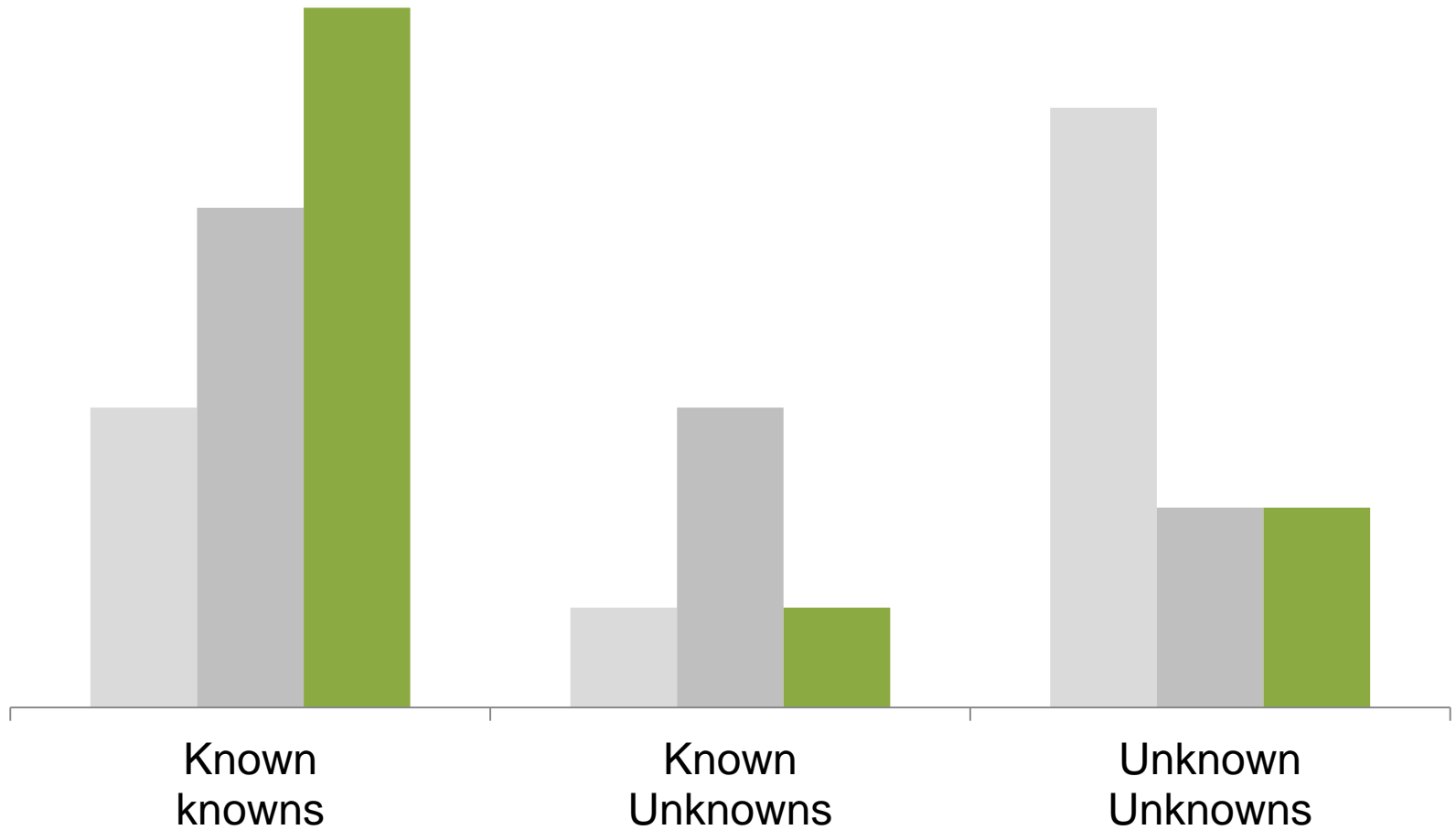
# Clinician / Carer perspective: current



# Clinician / Carer perspective: with registry



# Clinician / Carer perspective: harmonised query



# Missing specifications and infrastructure

**Central registry** – infrastructure and specs

**Address resolution** – resolving remote repositories

**Query mechanics**–query at local and national level

**Subscription**– specification to subscribe for events

**IG and security**– default to local repository policies

# Roadmap

**Agree on future state architecture**

**Agree missing specifications (& refine existing)**

**Continue building local sharing solutions**

**Complete missing national infrastructure**

**Start sharing beyond current silos**

**Lets do ourselves out of a job**

**...**

**... I don't want to be talking about barriers to integration in 10 years time – there are more interesting problems to solve**