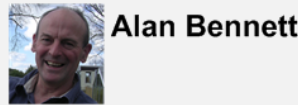
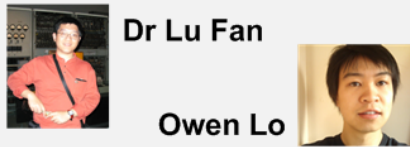
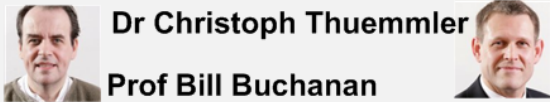


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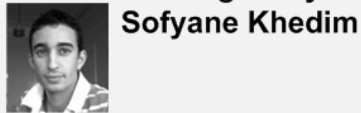
EPSRC
Pioneering research
and skills



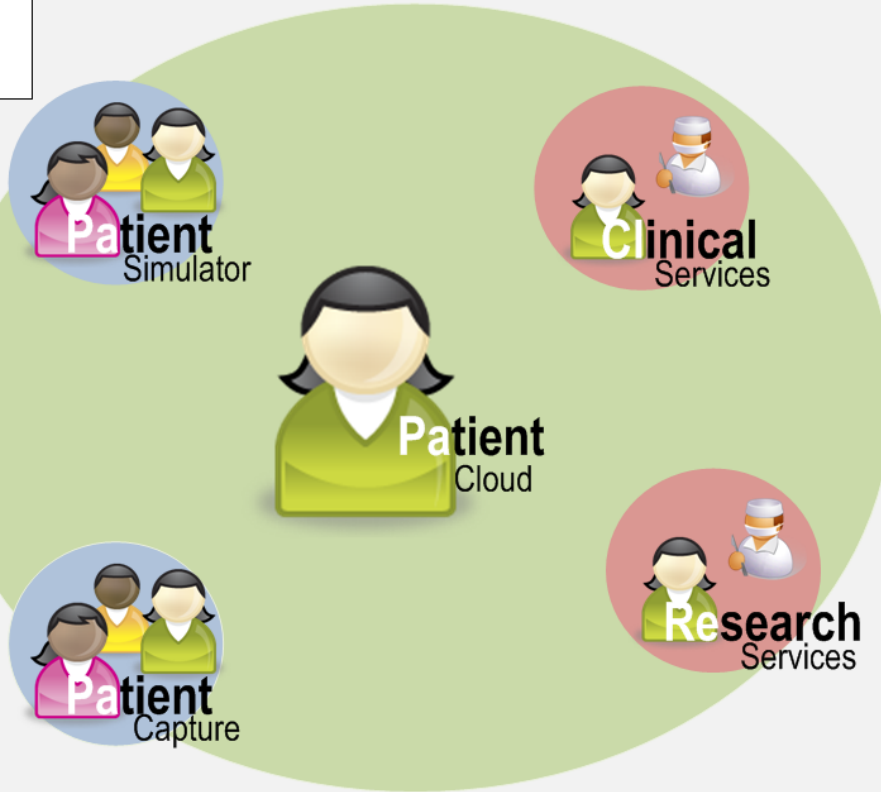
Edinburgh Napier
UNIVERSITY



kodit



**Imperial College
London**



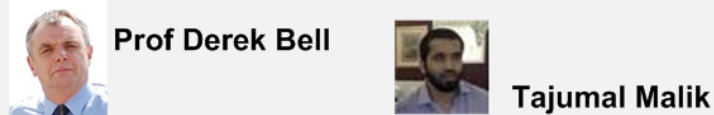
GS1
UK

Roger Lamb

CIPHER LAB



Chelsea and Westminster Hospital **NHS**
NHS Foundation Trust



PatientID



Static Patient Record

- Often localised
- Different systems/formats
- Poor access control
- Poor identity verification
- Cannot be aggregated
- Etc.

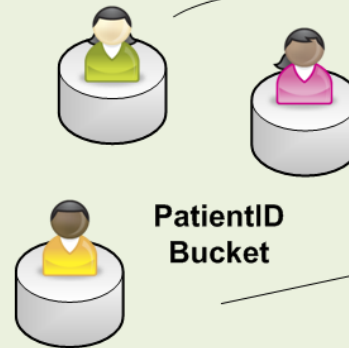


ConsumerID (RoleID)

Domain A



Data Storage (within the Cloud in buckets)



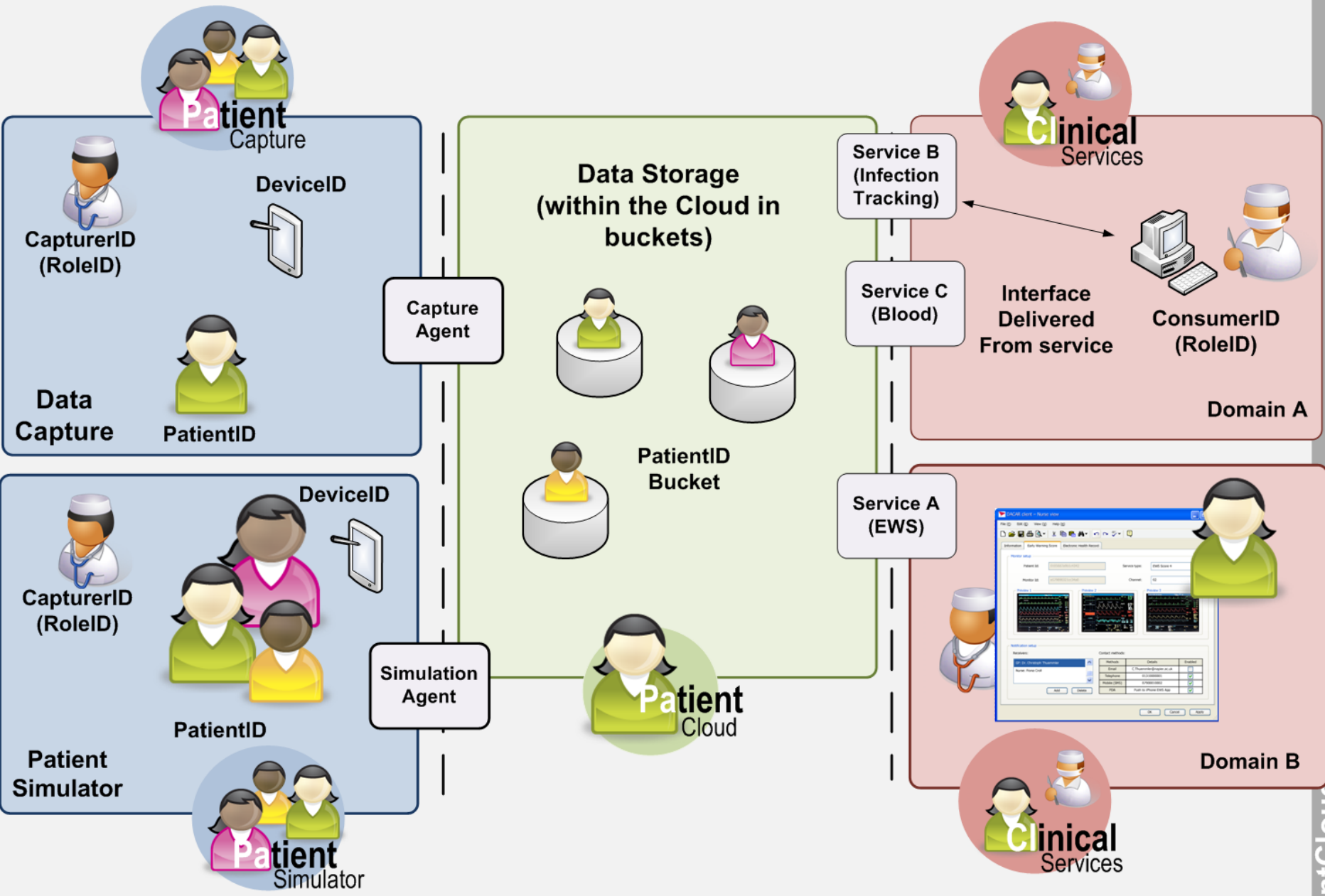
PatientID Bucket

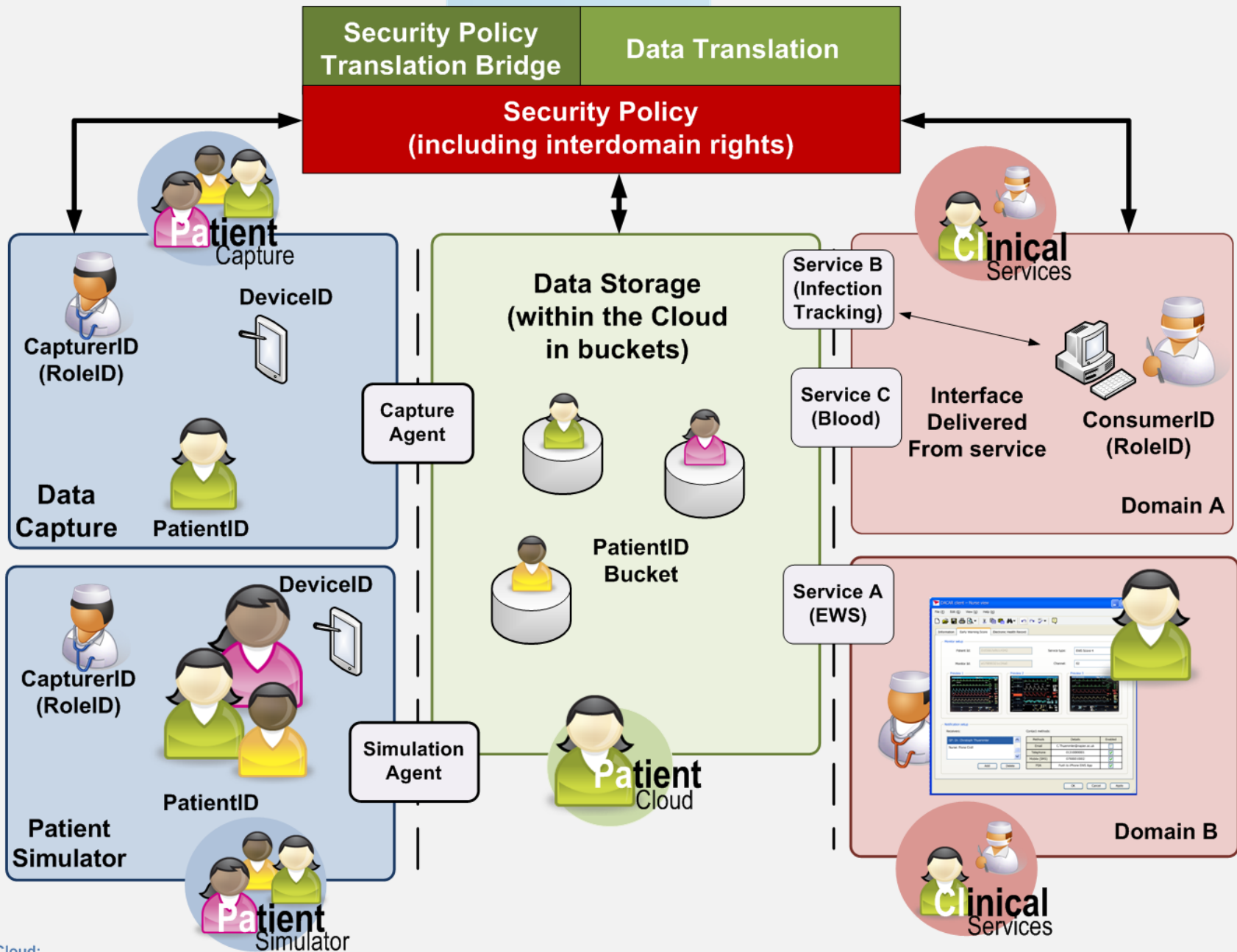
Dynamic Patient Records

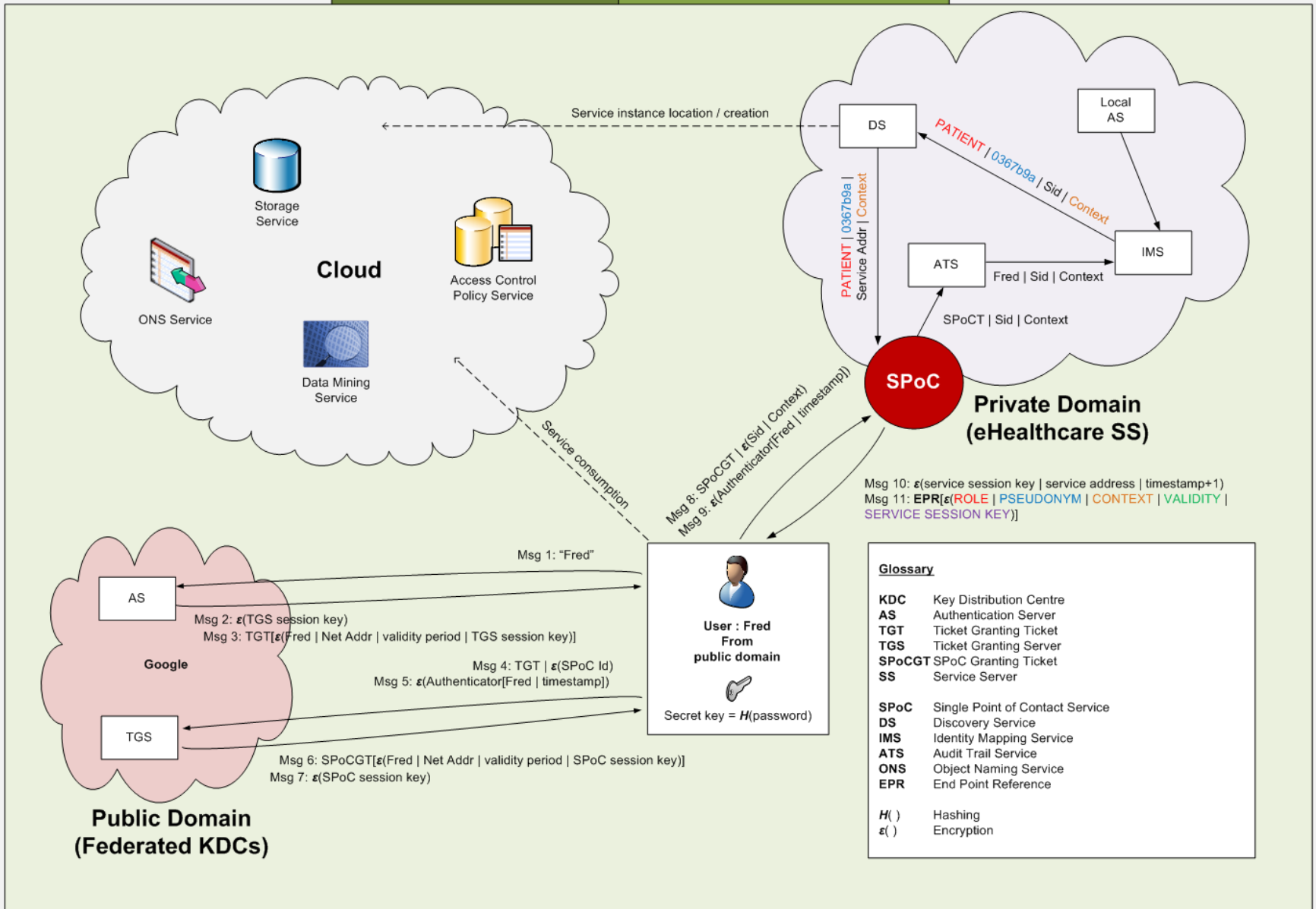
Security Policy (including interdomain rights)

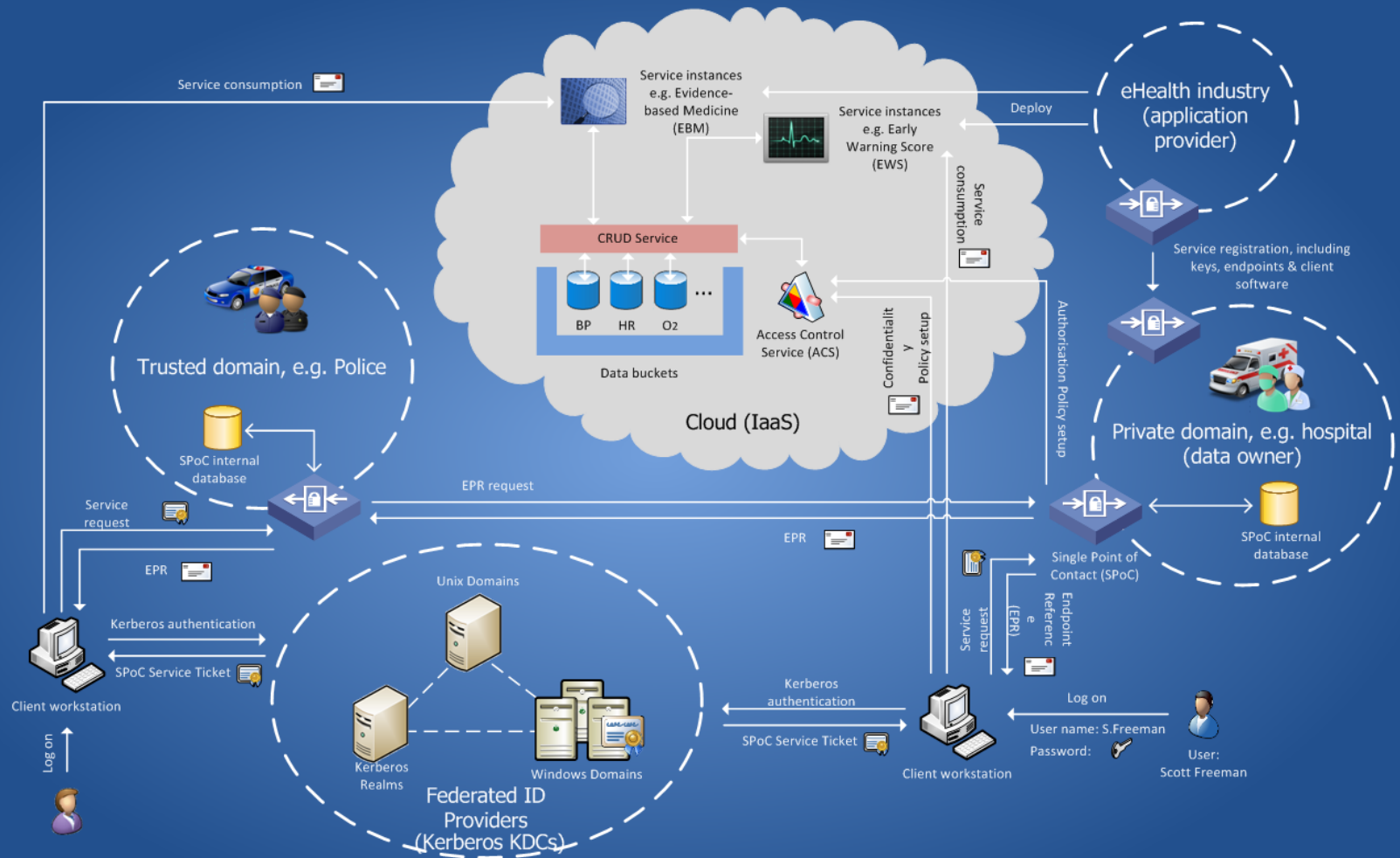


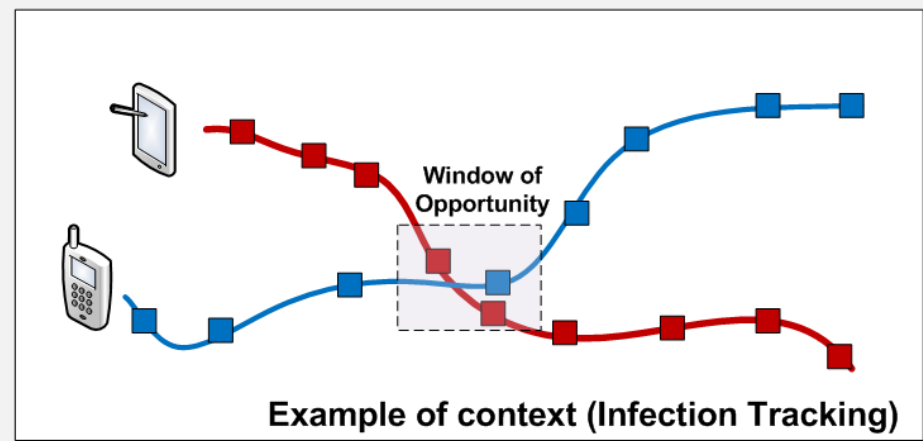
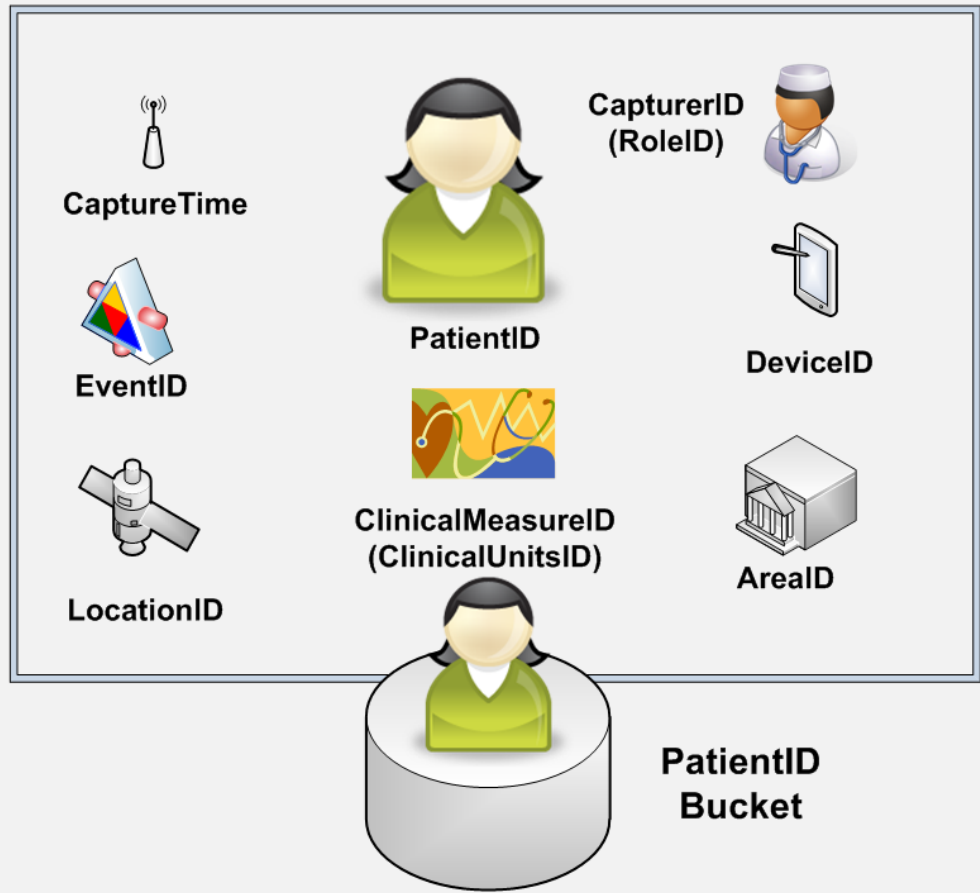
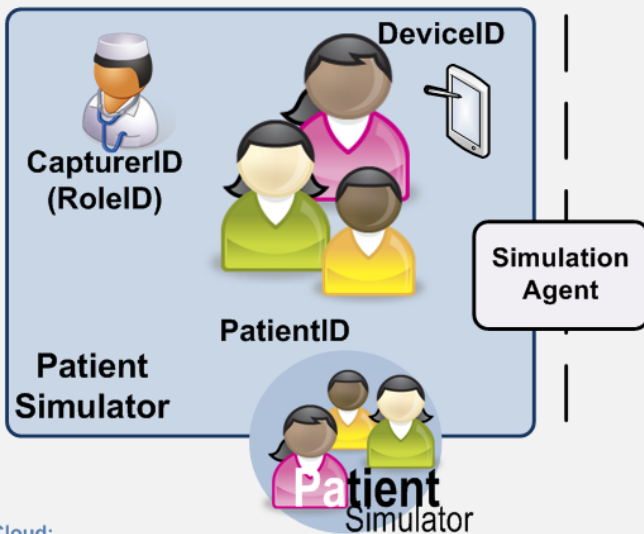
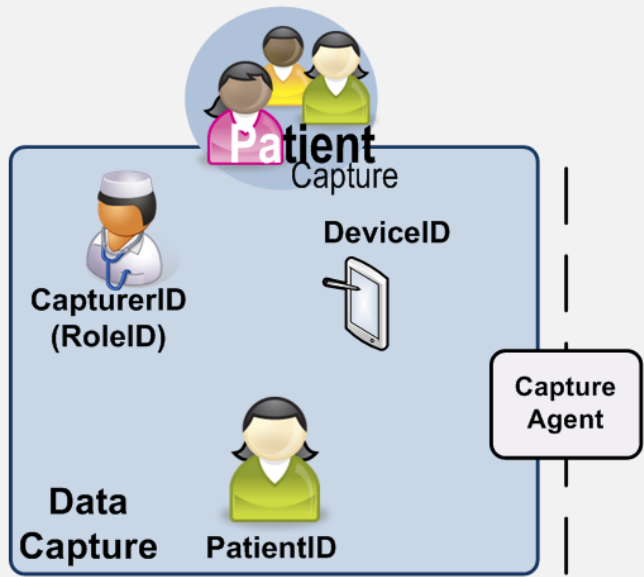
Why?

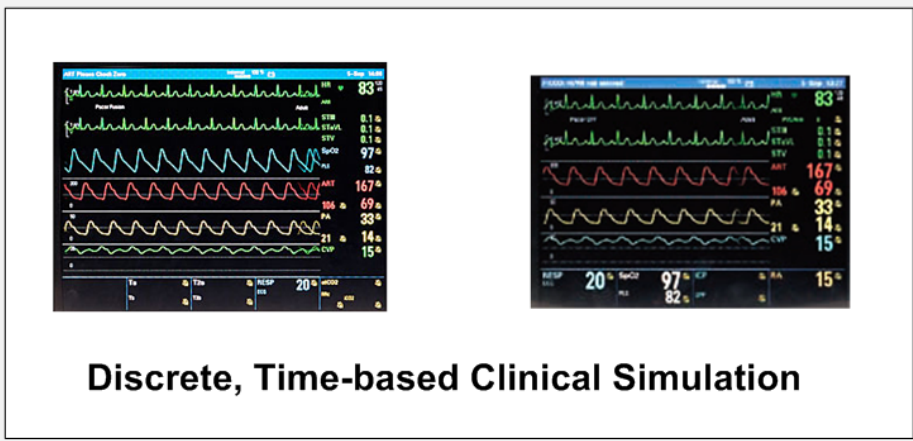
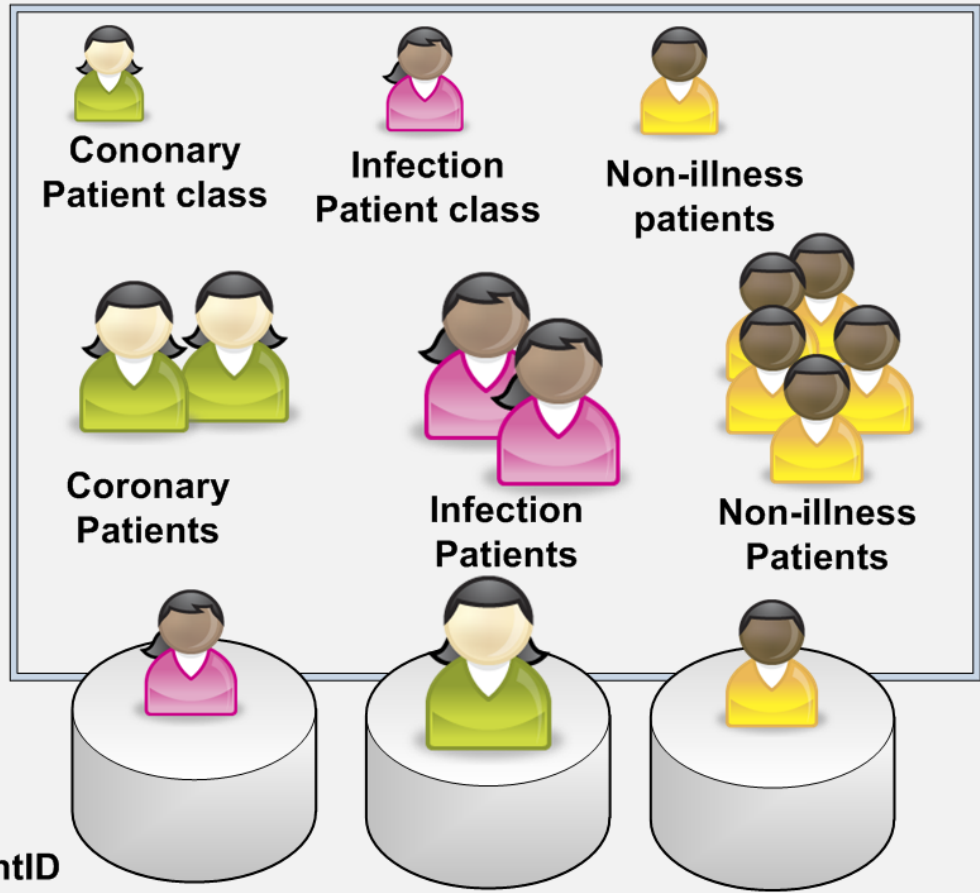
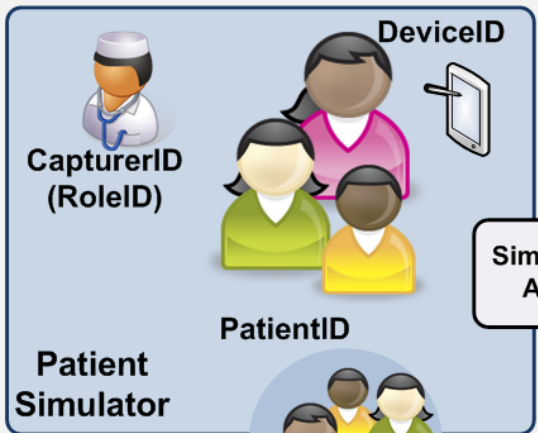
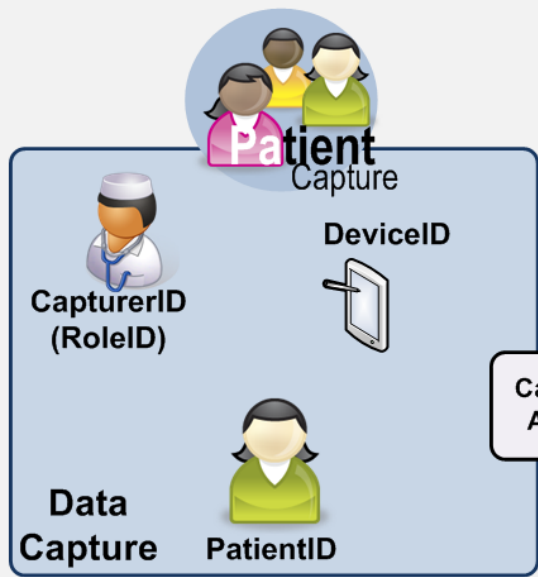


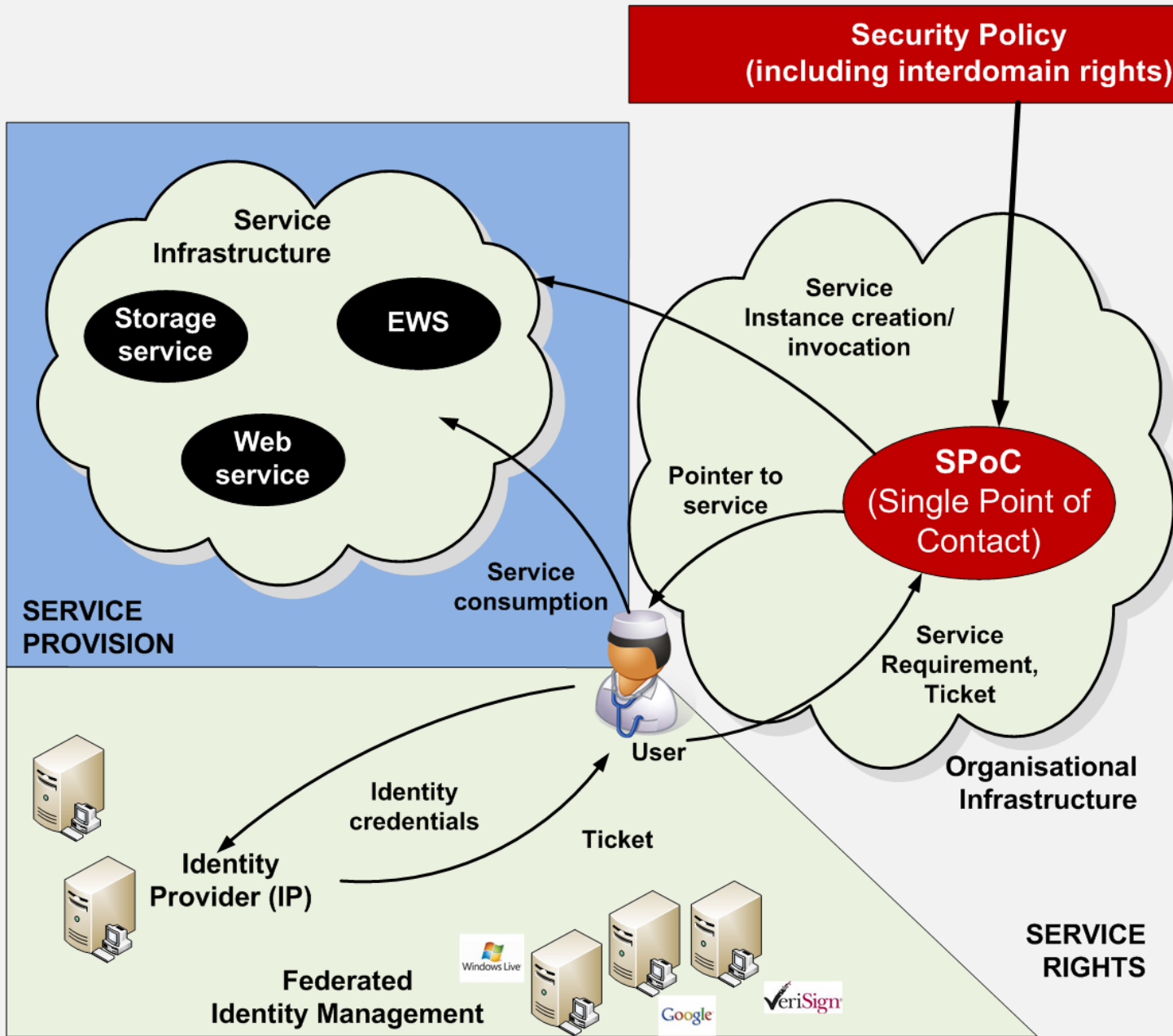














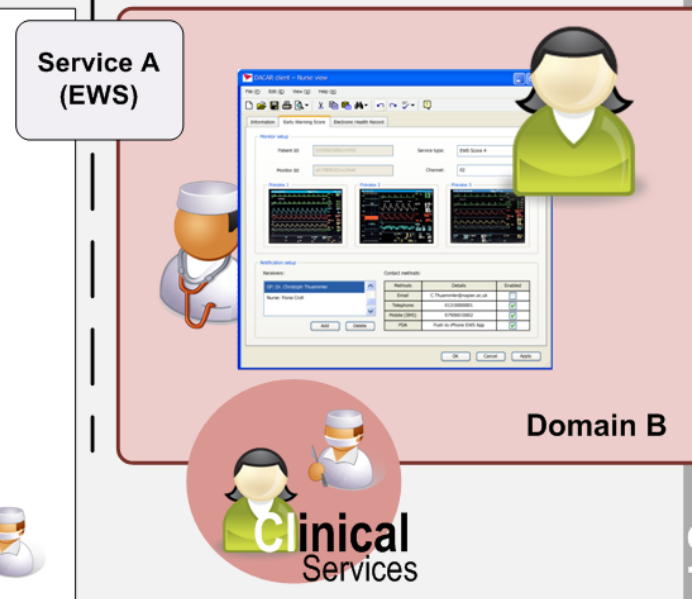
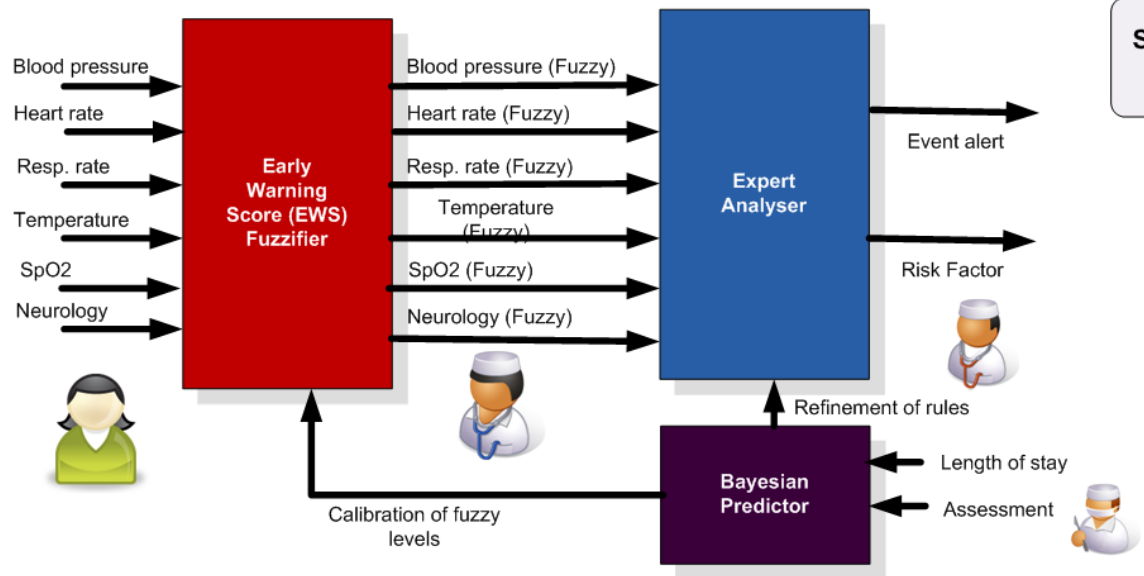
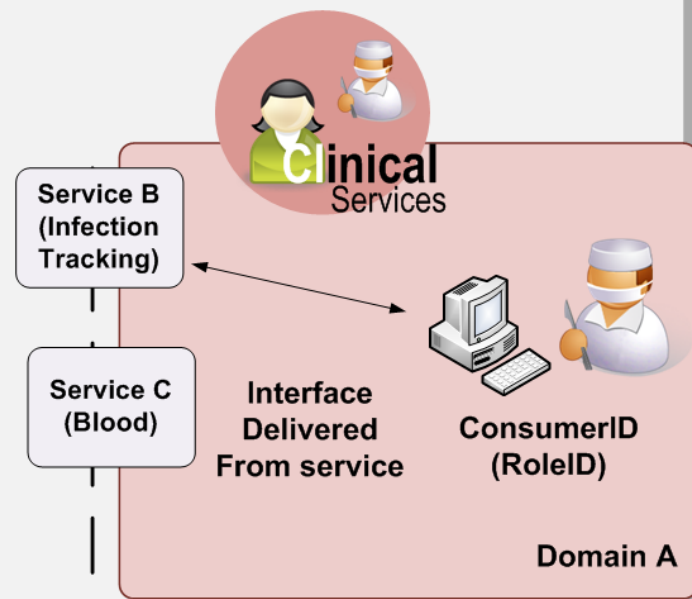
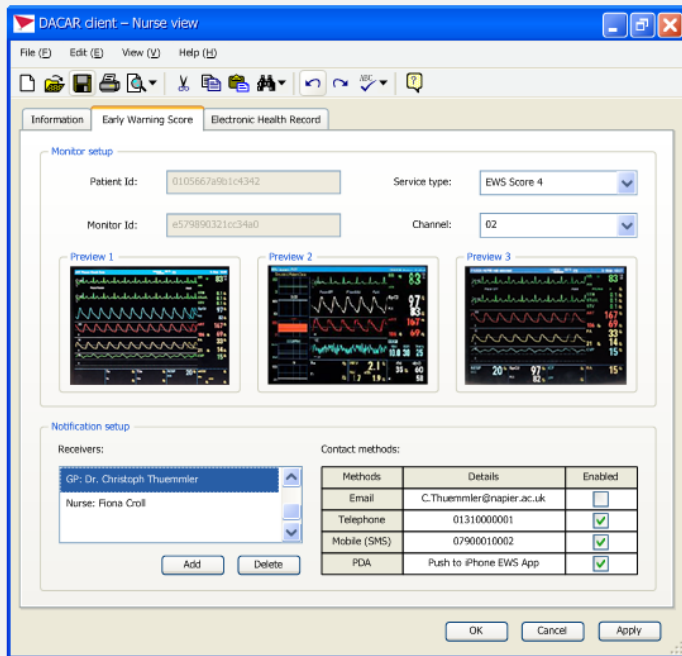
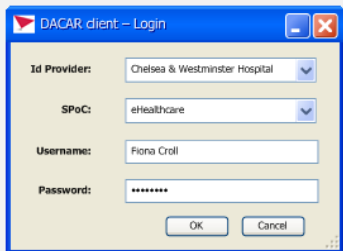
```
[permit] [Medical Staff] [C | R] [Temp | SpO2 | HR | BP | RR | Pain] of  
[Patient26078] with [EWS] from [Chelsea & Westminster Hospital] for [*] records  
in [P2010-12-30T00:00:00] using [Data Protection Act]
```

```
[permit | deny] [Requester] [C | R | U | D] [Attribute] of [Object] with  
[Context] from [Owner] for [N] records in [Time Window] using [Compliance].
```

A similar syntax is also applied to the request messages:

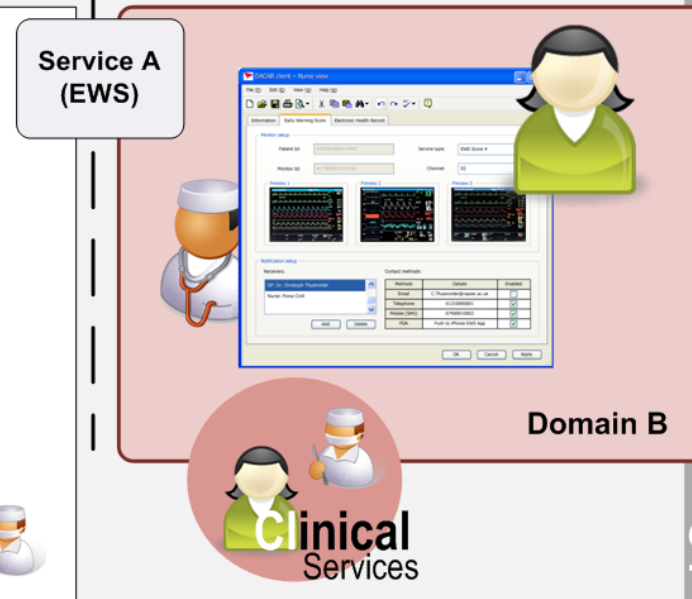
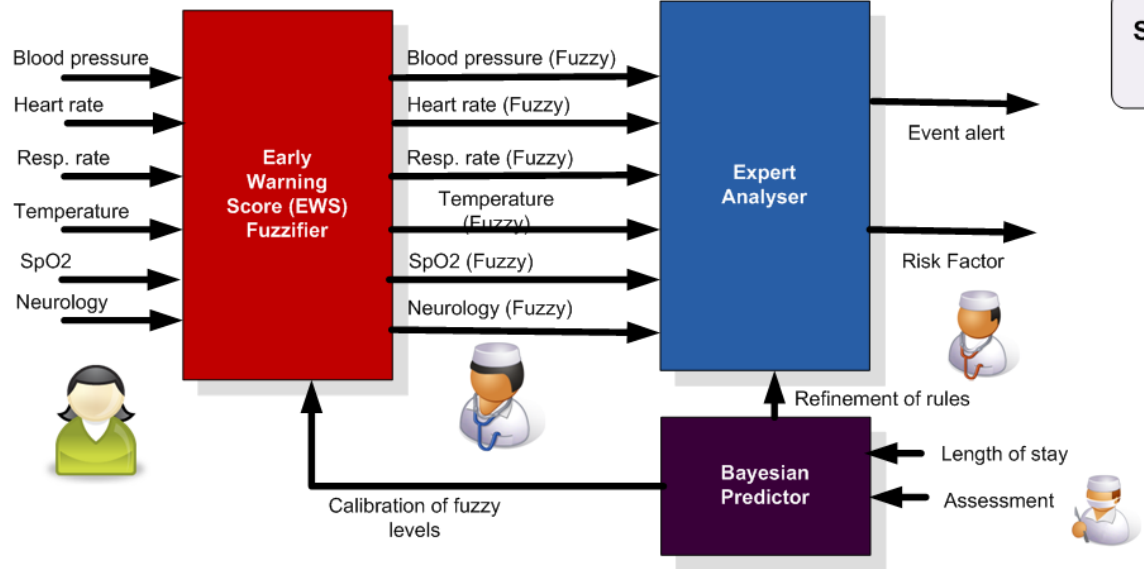
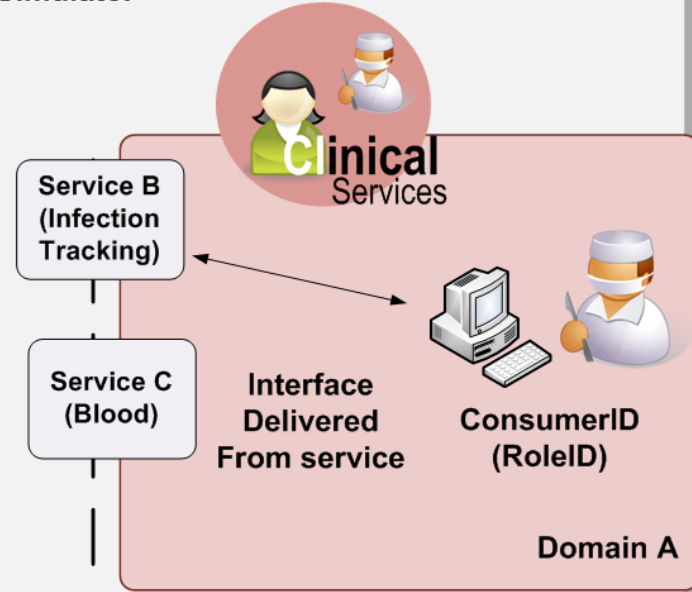
```
[Requester] [C | R | U | D] [Attribute] of [Object] with [Context] from [Owner]  
within [Start] to [End]
```

- { [permit | deny] This is part of the rule syntax which indicates the action of the rule. This defines whether a request meeting the rule criteria will be permitted or denied access.
- { [Requester] This identifies a request sender's role, e.g. GP, or pseudonym, e.g. 10420, or a combination of the two, e.g. GP10420.
- { [C | R | U | D] This defines detailed permissions for a requester to create, read, update and delete certain information.
- { [Attribute] This is a unit of information describing an object. An attribute may be a primitive data type, e.g. the pseudonym of an object as a string, or a complex data type, e.g. a person's ECG record for 45 seconds.
- { [Object] This is part of DACAR's system model. It refers to any entities in a healthcare scenario, about which information is held.
- { [Context] This identifies the reason why the information is being shared. The context governs the level of access and permissions associated with information exchange, and hence defines the priority accorded to information requests.
- { [Owner] This species a role with sufficient privileges to manage all aspects of an information source. The owner has the authority to allow or deny access to an information element, as required by legislation and defines responsibilities.
- { [N] records in [Time Window] This defines the number of records permitted over a period of time, where N can be any positive integer.
- { [Compliance] This refers to legislative requirements that support the exchange of information, such as the Data Protection Act, the Human Rights Act, the Freedom of Information Act and so on.
- { [Start] and [End] These identify the start and end of the date/time period over which information shown.



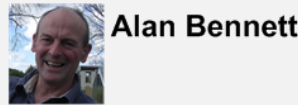


Patient Simulator

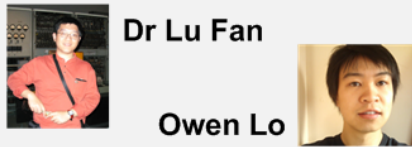
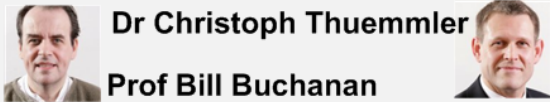


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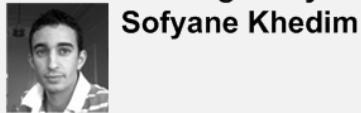
EPSRC
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and skills



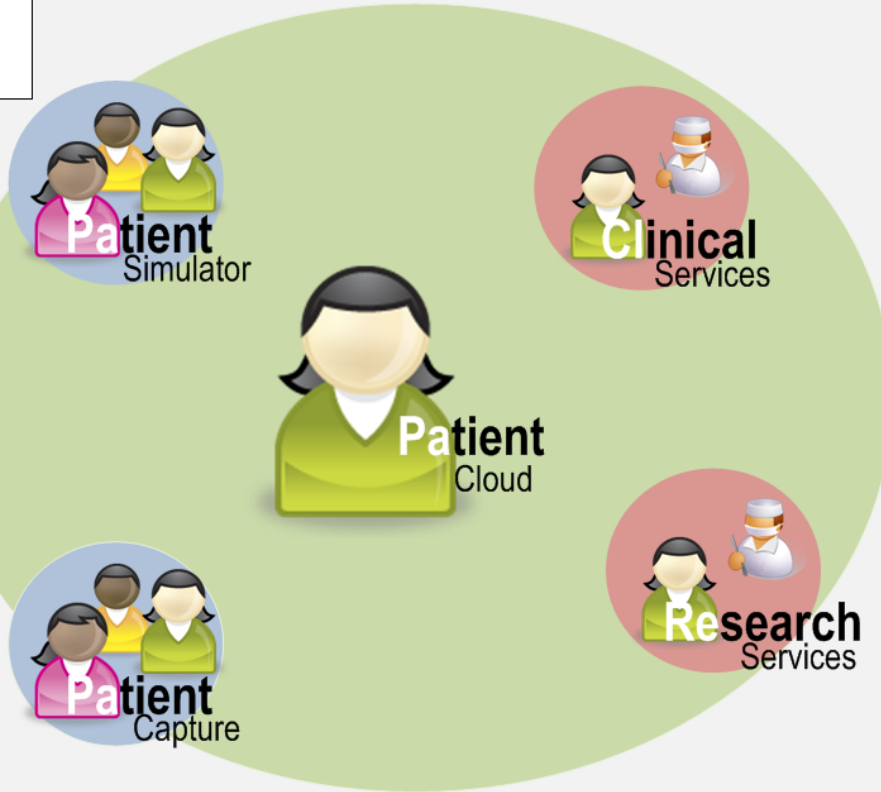
Edinburgh Napier
UNIVERSITY



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**Imperial College
London**



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UK

Roger Lamb

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