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Considerations for UK ENUM

1. The UK has many different Telco's.

2. Not all telco's will participate.

3. ENUM registration should be as secure and robust as possible.

4. If the registration is secure other services can follow - Trusted ID, PKI, Micro Payments.

Roles & Responsibilities

T1 - Registry

- Single entity responsible for delegation of 4.4.e164.arpa.
- Competetive appointment process, no benefit for profit/not for profit.
- Decision criteria based on 'best value'

T2 - Registrar

- Customer facing organisation, interfaces to other parties.
- Responsible for collectng customer details to specified standards.
- Multiple Registars, the customer facing component of registration.
- Must keep audit trails to minimise abuse of registration process.
- Follows compulsory code of practice.

AA - Authentication Agency

- Interface between the registrars and the TSP's, peer to TSP's.
- Formally accredited, complies with TSP standards.
- Legal liability for accuracy of validation and accreditation.

Roles & Responsibilities

TSP - Telco Service Provider

- ENUM Customers existing (legacy) provider.
- Does not have to participate - but registrations can be more secure.

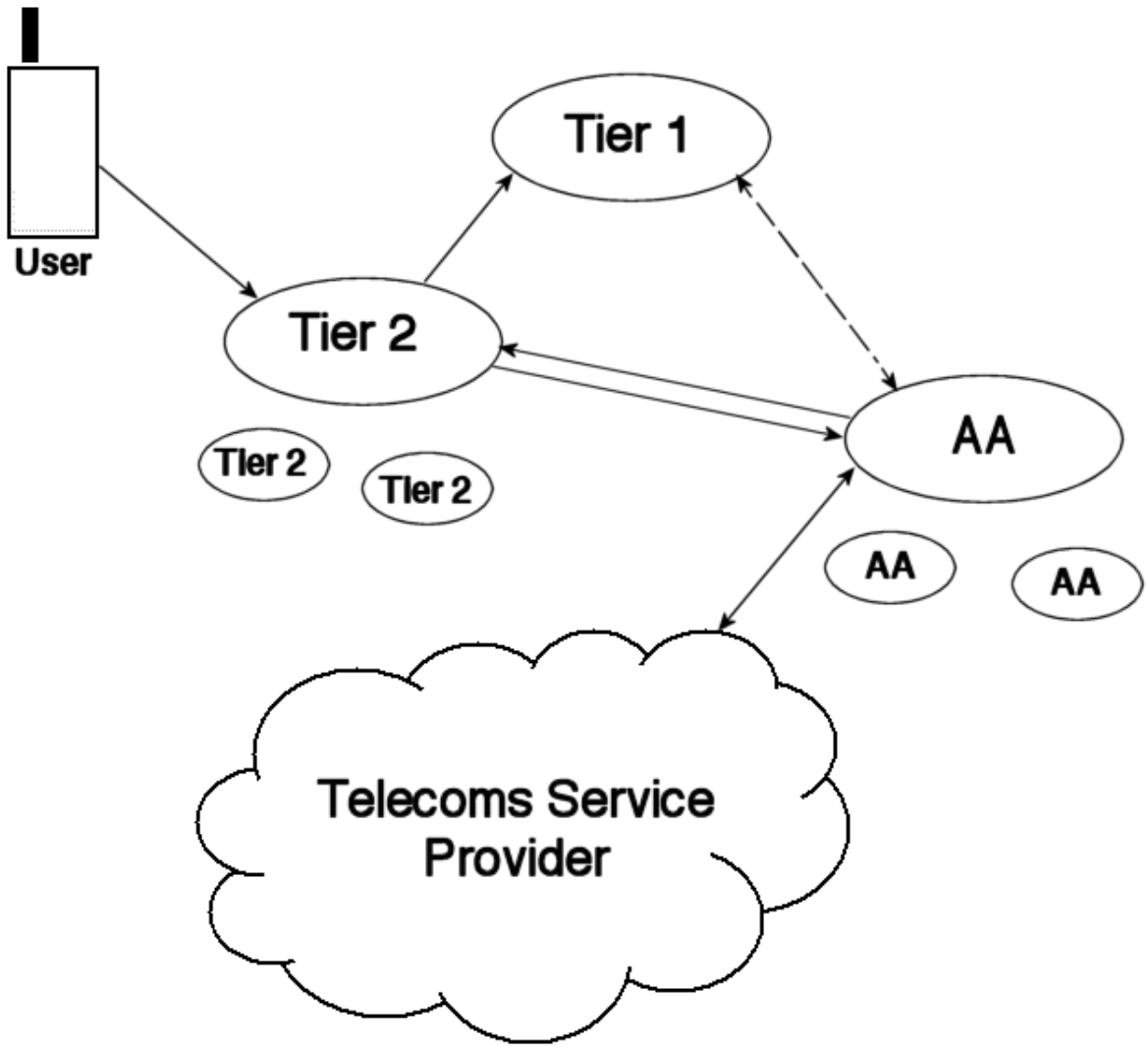
DNS Providers

- Most likely to be combined with Registrar or Application provider roles.
- Larger corporates may choose to operate their own DNS.
- Stealth master approaches seem viable.

Application provider

- Provide applications to end users.
- Able to operate as 'reseller' of Registrar services.
- Customer may choose to have mutiple application providers.

Architecture Overview



Registration Process Overview

1. User contacts Registrar
   Registrar provides secure web based interface.

2. Registrar submits details to AA
   Interfaces method to be decided – trial is using email initially

3. AA queries with TSPs validity of Registrant
   Or uses pin code process if TSP does not ‘participate’

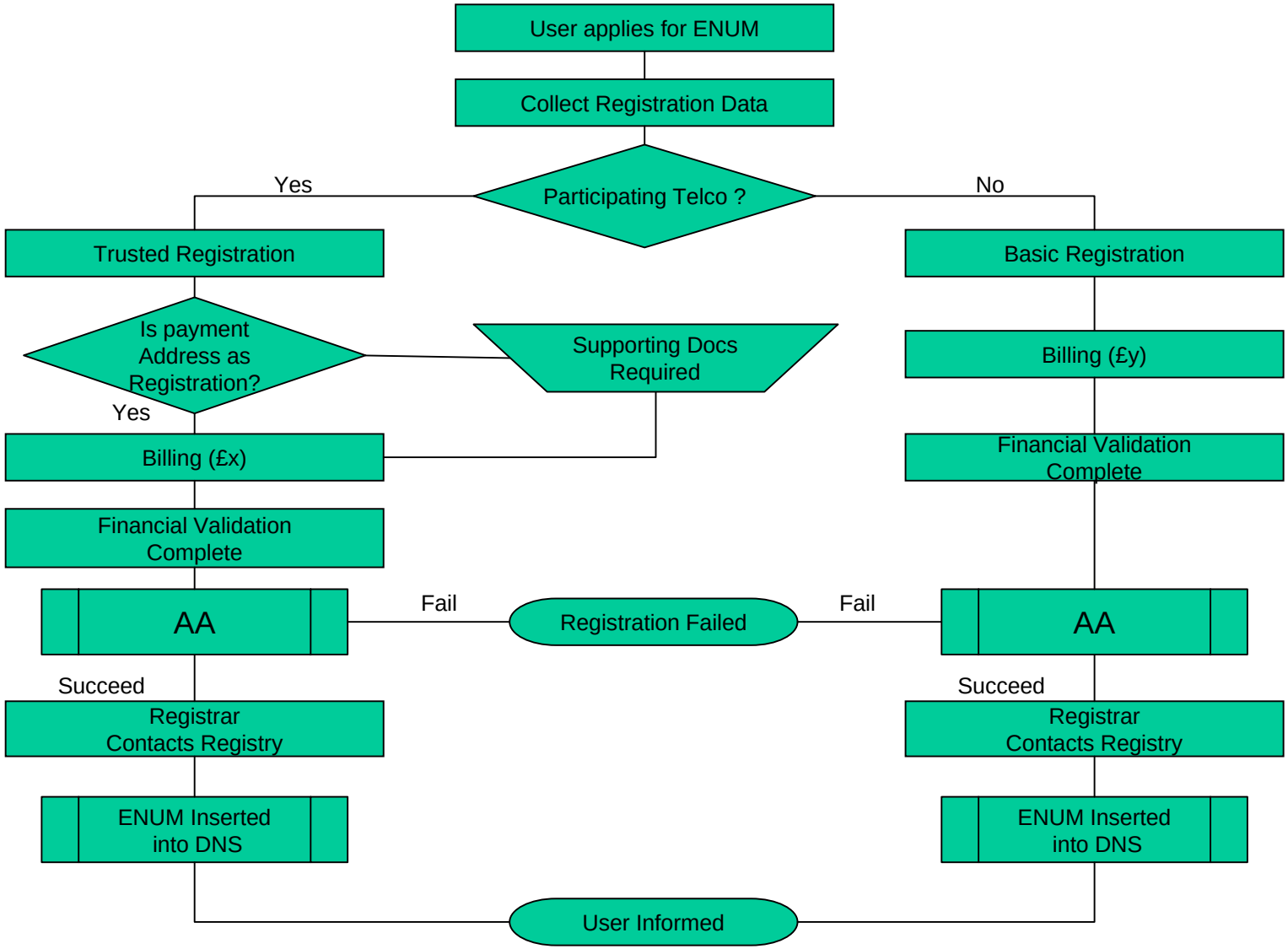
4. AA returns response to Registrar

5. Registrar submits new delegation to Registry
   Registrar has some method to check Authentication validity

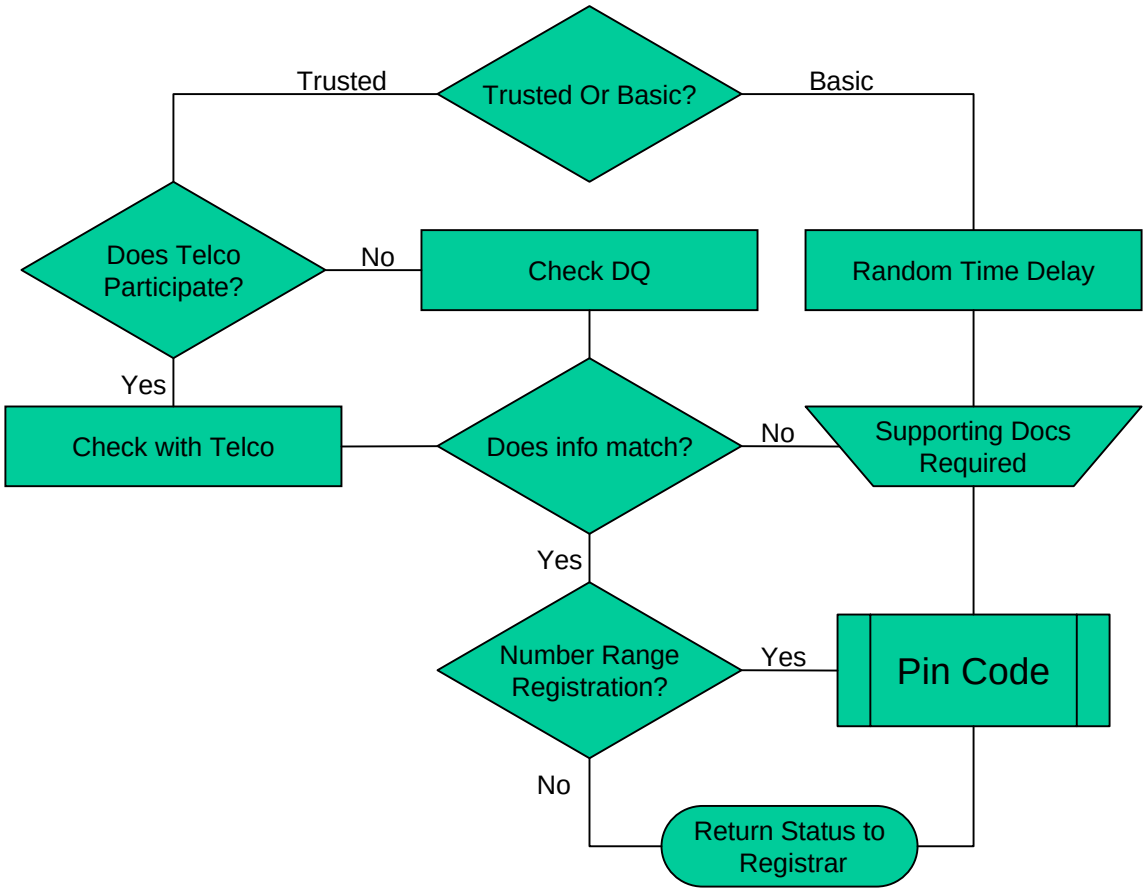
Threat Model Considerations

- Registration of a non existant number.
- Users telco withdraws service (non payment etc)
- Registration of a number under incorrect name.
- Registration of another users's number (Identity theft).

Authentication & Validation Process



AA Process


Trusted Or Basic?
Trusted
Basic
Does Telco Participate?
No
Check DQ
Random Time Delay
Yes
Check with Telco
Does info match?
No
Supporting Docs Required
Yes
Number Range Registration?
Yes
Pin Code
No
Return Status to Registrar

Pin Code Process