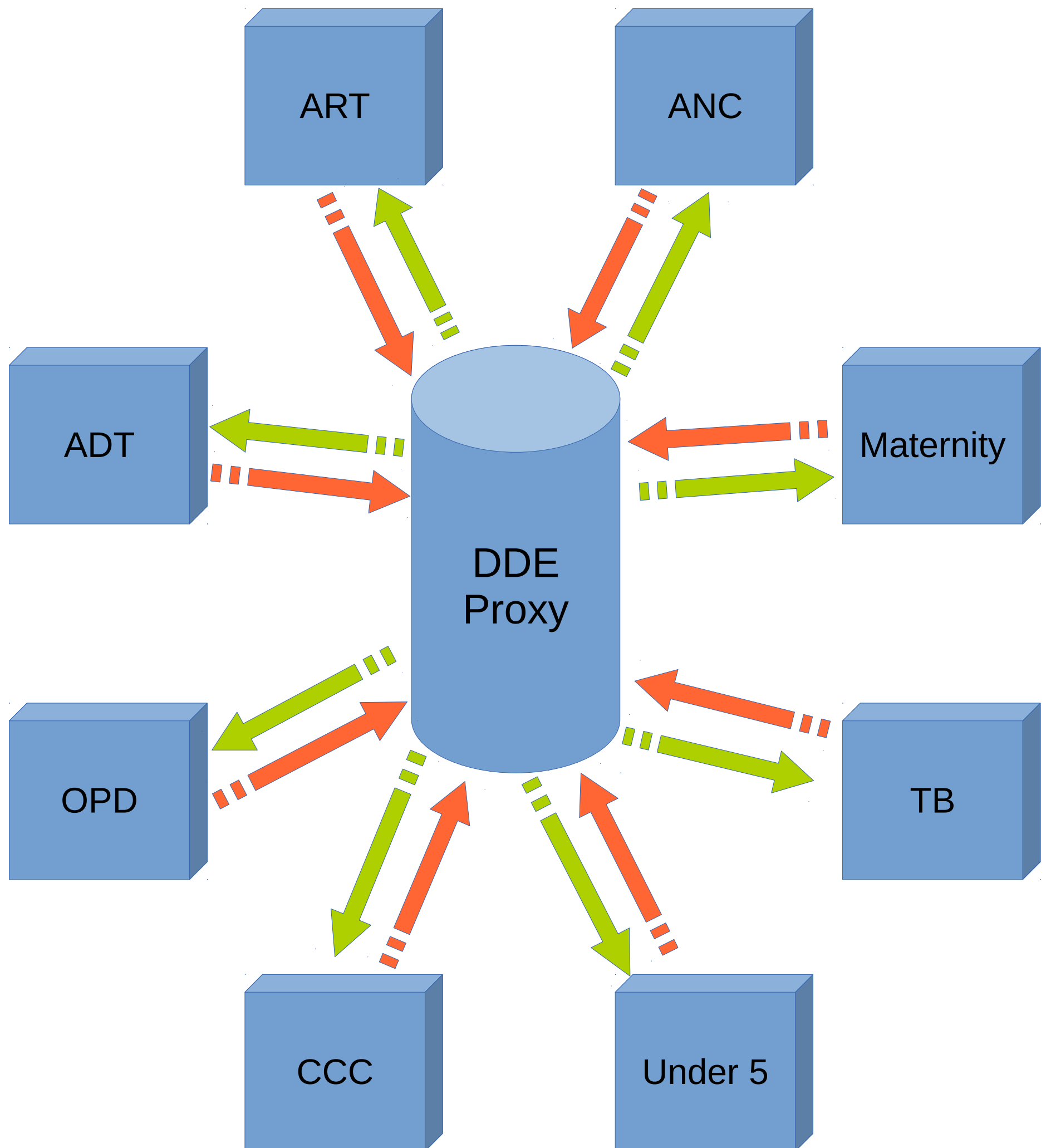


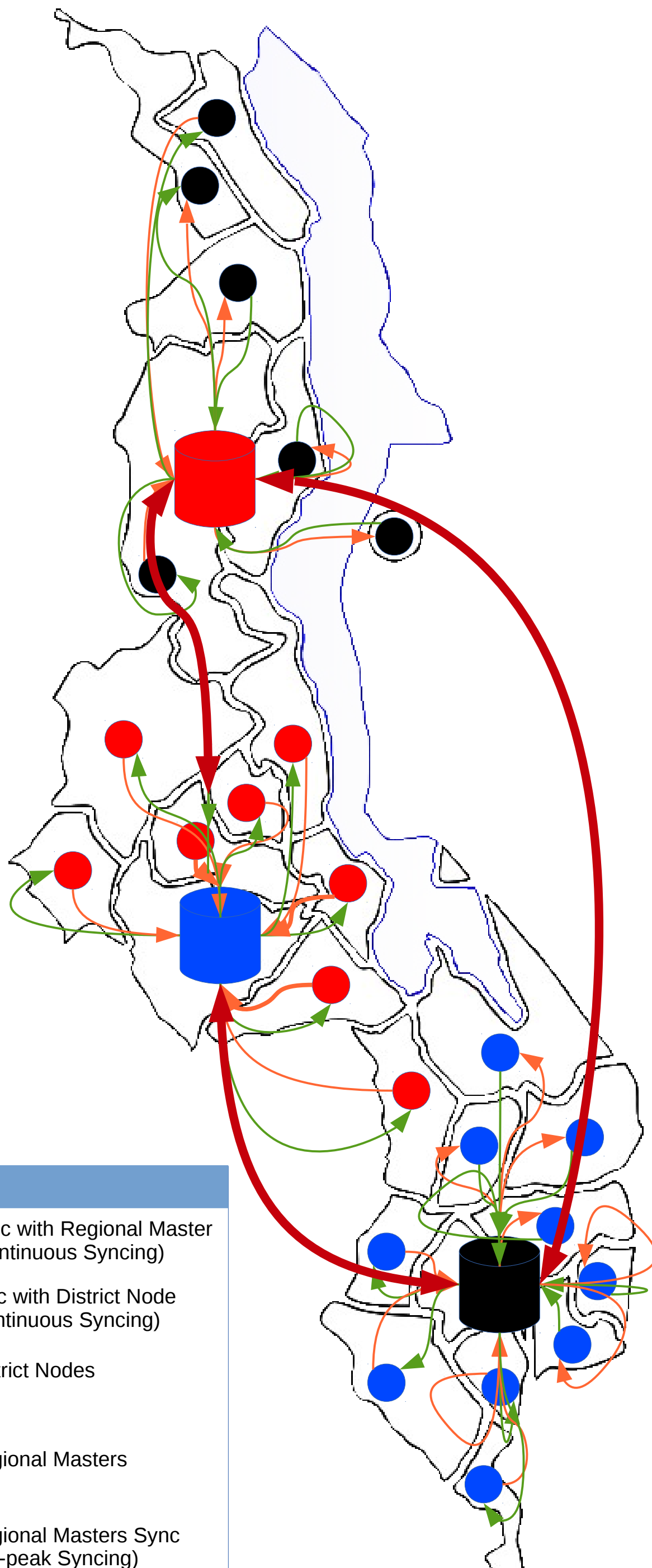
# Demographics Data Exchange Design Document

## Global Proxy View




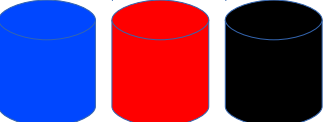



# Demographics Data Exchange Design Document

## National and Regional Master/Proxy Nodes Distribution

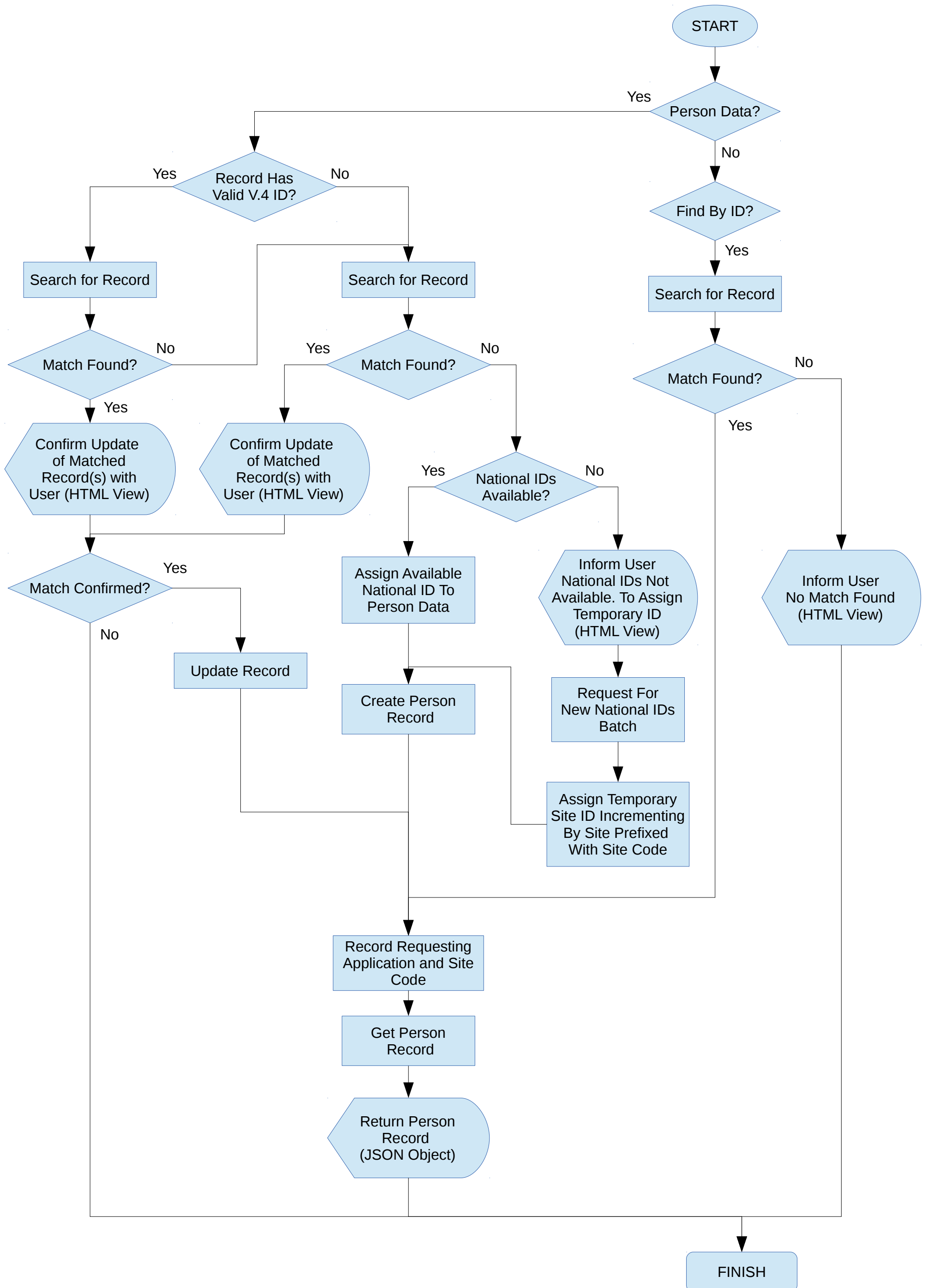


### Legend

-  Sync with Regional Master (Continuous Syncing)
-  Sync with District Node (Continuous Syncing)
-  District Nodes
-  Regional Masters
-  Regional Masters Sync (Off-peak Syncing)

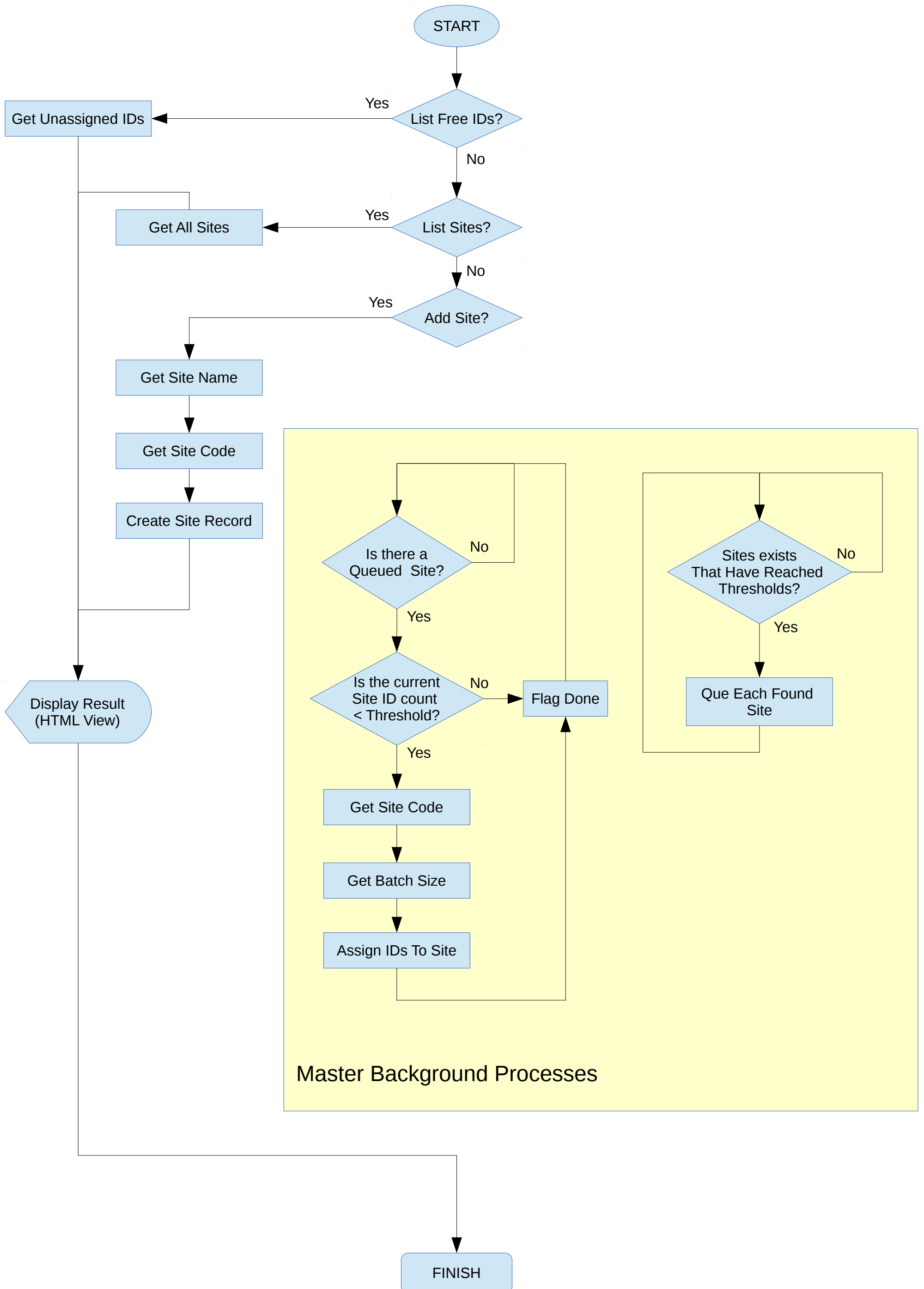
# Demographics Data Exchange Design Document

## DDE Proxy Server Person Management Flow Diagram



# Demographics Data Exchange Design Document

## DDE Master Server Identifier Management Flow Diagram



Demographics Data Exchange Design Document

DDE Classes

Person

- names:{  
    family\_name:String,  
    given\_name:String  
}  
- gender:String  
- birthdate:String  
- birthdate\_estimated:Integer  
- attributes:{  
    citizenship:String,  
    occupation:String,  
    cell\_phone\_number:String,  
    home\_phone\_number:String,  
    race:String  
}

- patient:{  
    Identifiers:{}  
}  
- addresses:{  
    current\_residence:String,  
    current\_village:String,  
    current\_ta:String,  
    current\_district:String,  
    home\_village:String,  
    home\_ta:String,  
    home\_district:String  
}  
- patient\_assigned:Boolean  
- assigned\_site:String

Utils::Person

~ match\_confirmed:JSON  
~ matches\_found:Array(JSON)

+ process\_person\_data(JSON):JSON  
- record\_has\_v4\_id(JSON):BOOLEAN  
- search\_for\_record\_by\_params(  
    first\_name:String,  
    last\_name:String,  
    gender:String,  
    date\_of\_birth:String(OPTIONAL),  
    home\_t\_a:String(OPTIONAL),  
    home\_district:String(OPTIONAL)  
):JSON  
- confirm\_record\_to\_update(JSON):Array(JSON)  
- create\_person\_record(JSON):BOOLEAN  
- update\_person\_record(JSON):BOOLEAN  
- get\_person\_record(npid:String):JSON  
+ search\_by\_npid(npid:String):Array(JSON)

Npid

- national\_id:String  
- assigned:BOOLEAN  
- site\_code:String

- region:String

JSON Object Definition

```
{  
  "npid":"","  
  "application":"","  
  "site_code":"","  
  "names":  
    {  
      "family_name":"","  
      "given_name":"","  
    },  
  "gender":"M",  
  "attributes":{  
    "occupation":"","  
    "cell_phone_number":"","  
  },  
  "birthdate":"YYYY-MM-DD",  
  "patient":{  
    "identifiers":{  
      "other_identifier":"","  
    }  
  },  
  "birthdate_estimated":"0",  
  "addresses":{  
    "current_residence": null,  
    "current_village": null,  
    "current_ta": null,  
    "current_district": null,  
    "home_village": null,  
    "home_ta": null,  
    "home_district": null  
  }  
}
```

Note:

All missing fields  
Can be left empty  
And ignored when  
Working with the  
JSON Objects  
Passed.

RequestsQueue

- site\_code:String  
- region:String  
- site\_code:String  
- threshold:Integer  
- request\_status:String

Utils::Proxy

+ check\_if\_npids\_available():BOOLEAN  
+ assign\_npid\_to\_person(JSON):JSON  
+ assign\_temporary\_npid(JSON):JSON  
+ get\_unassigned\_npids():Array(JSON)  
+ request\_for\_npids(  
    site:String,  
    site\_code:String  
):BOOLEAN

Utils::Master

+ assign\_npids\_to\_site(  
    site:String, quantity:Integer  
):BOOLEAN  
+ add\_site(site:String, site\_code:String):BOOLEAN  
+ get\_unassigned\_npids():Array(JSON)  
+ get\_all\_sites():Array(JSON)  
  
+ que\_site(site:String, site\_code:String):BOOLEAN  
+ check\_site\_thresholds():BOOLEAN  
  
+ process\_queued\_sites():BOOLEAN  
  
+ assign\_npids\_to\_region(  
    region:String, quantity:Integer  
):BOOLEAN

Site

- name:String  
- description:String  
- site\_code:String

- threshold:Integer  
- region:String

Footprint

- npid:String  
- application:String  
- site\_code:String

+ log\_application\_and\_site(  
    npid:String,  
    application:String,  
    site:String  
):Array(JSON)

Legend

Class Name

Class Methods

Constituent Class

OPTIONAL

+

-

JSON

Array(Type)

Parameter is optional

Method/Attribute Public

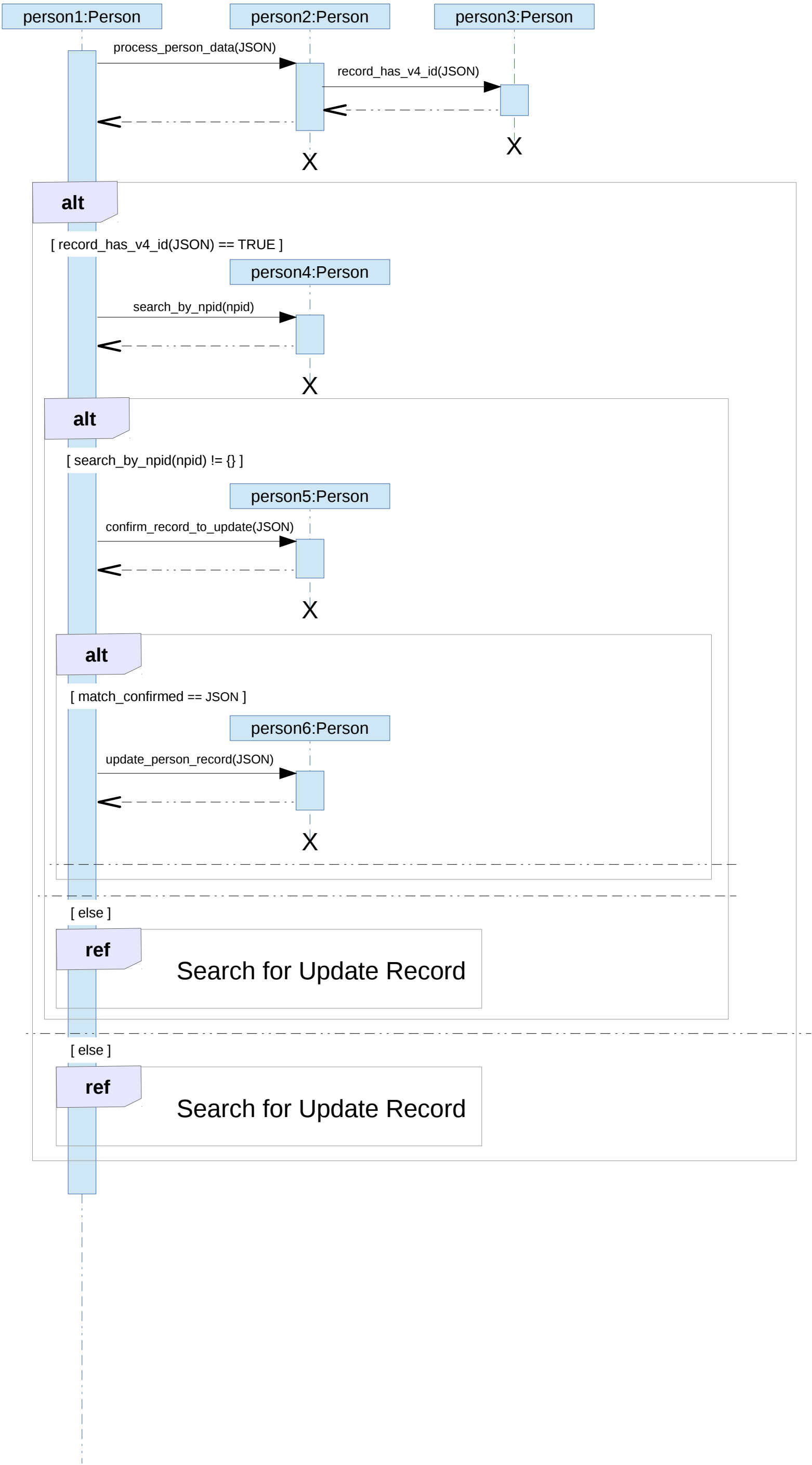
Method/Attribute Private

JSON Object Type (Associative Array)

Array collection of data type 'Type'

# Demographics Data Exchange Design Document

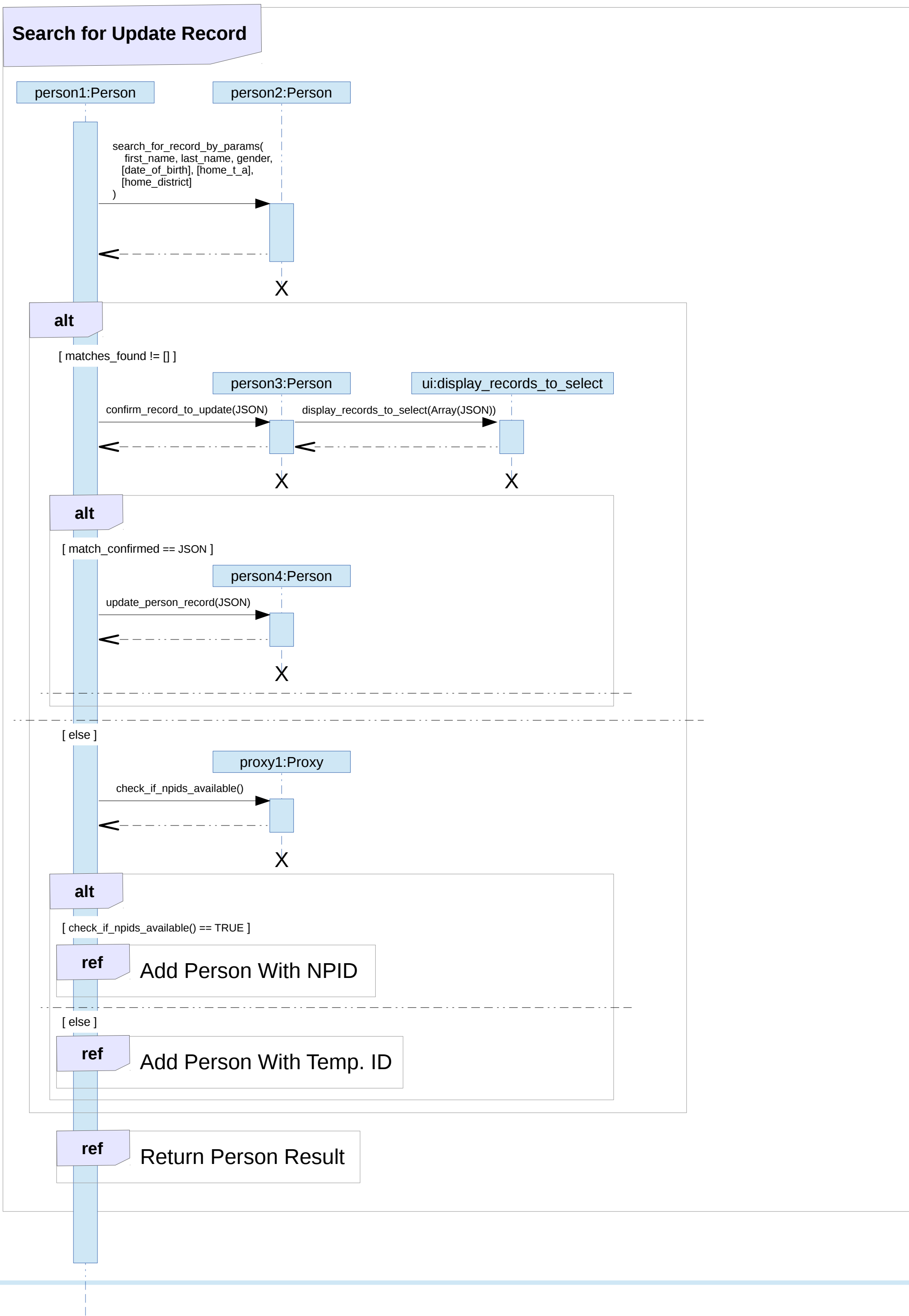
## DDE Person Management Class Sequence Diagram



# Demographics Data Exchange Design Document

## DDE Person Management Class Sequence Diagram (cont'd)

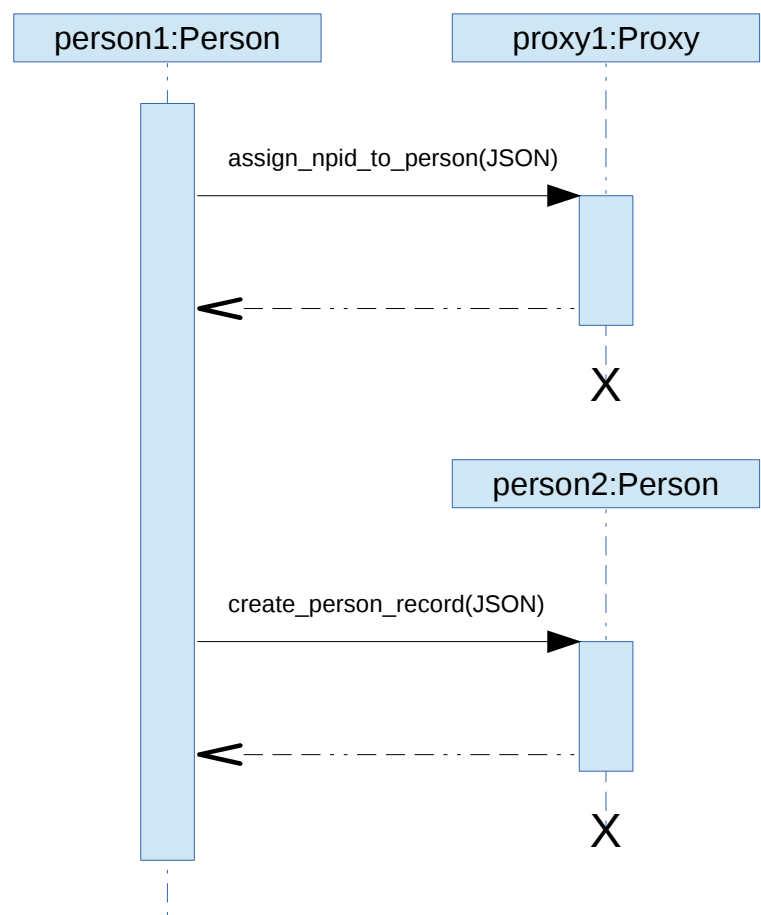
### Search for Update Record



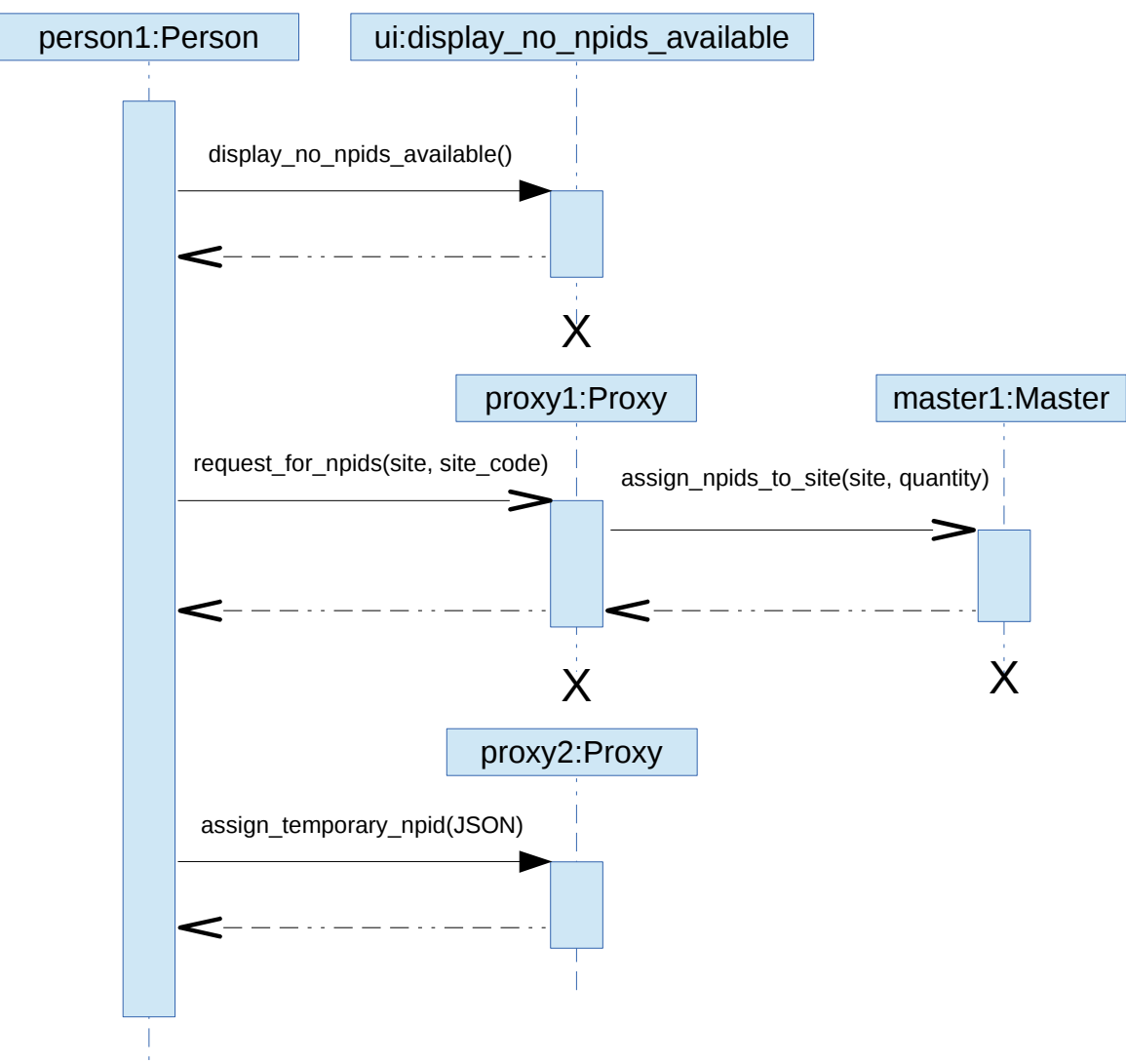
# Demographics Data Exchange Design Document

## DDE Person Management Class Sequence Diagram (cont'd)

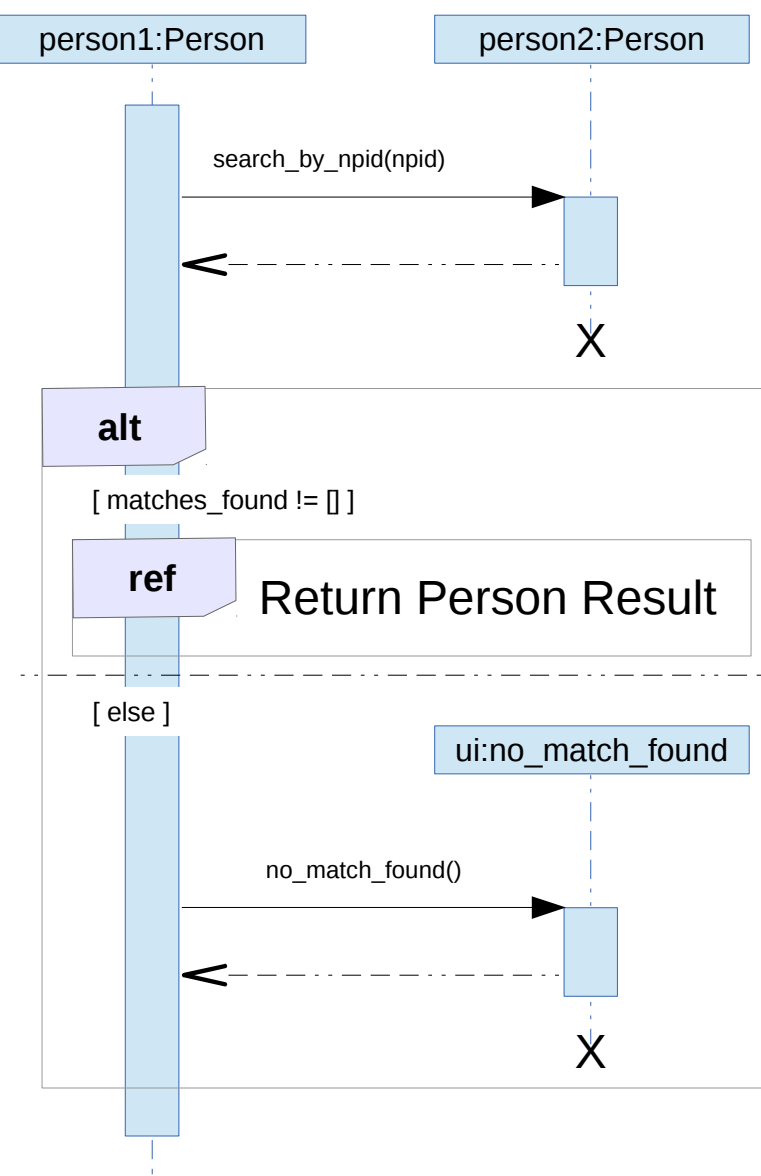
### Add Person With NPID



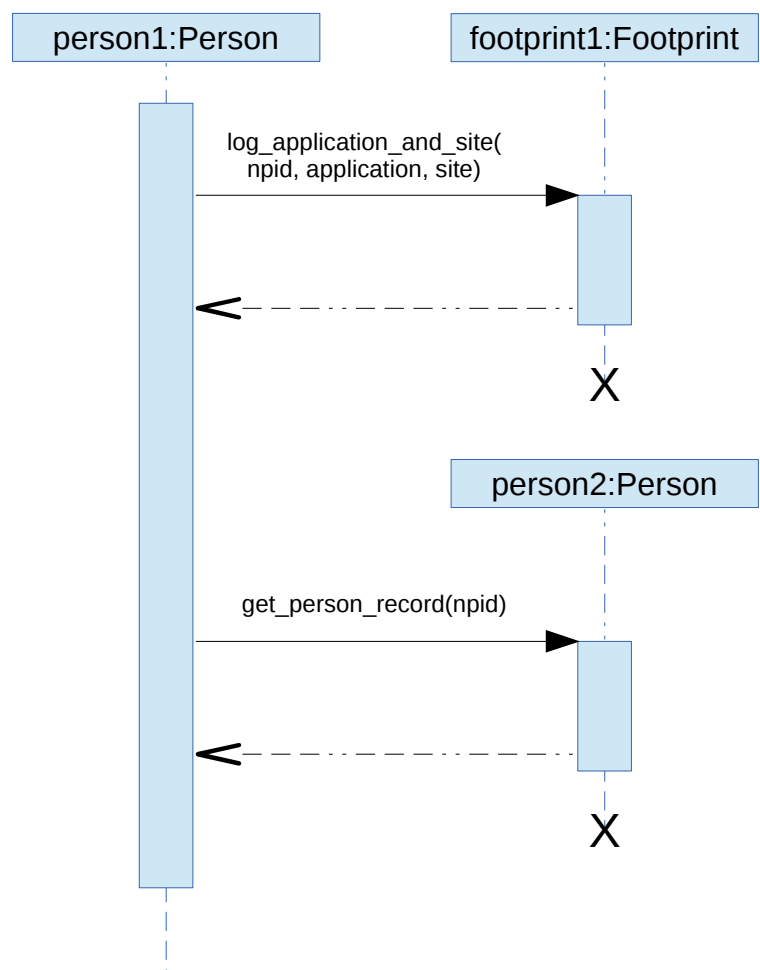
### Add Person With Temp. ID



### Search for Person by NPID



### Return Person Result





# Demographics Data Exchange Design Document

## DDE Person Management Class Views

ui:display\_records\_to\_select(Array(JSON))


### Select Patient From The Following List

First Name: Test

Last Name: Test

Age: Age

National ID: NPID



Home Village: Village

Home T/A: T/A

Home District: District

First Name Last Name, NPID, Gender, Age, Home T/A

First Name Last Name, NPID, Gender, Age, Home T/A

First Name Last Name, NPID, Gender, Age, Home T/A

Test Test, NPID, Gender, Age, Home T/A

First Name Last Name, NPID, Gender, Age, Home T/A

First Name Last Name, NPID, Gender, Age, Home T/A

Cancel

Select Patient

ui:no\_match\_found()

Sorry! No Match Found!

OK

ui:display\_no\_ids\_available()

No National IDs Are Available Now.

Patient Will Be given A Temporary ID For Replacement Later.

OK