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| **Detailed Design Description**  KSP**-**12746 |
| **Solr Service** |
| Prepared for: |
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| Detailed Design Description | |
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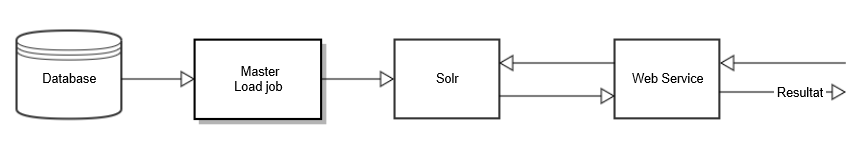
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# Introduction

The Solr service consists of; Solr as a standalone service and a master load job, that populates Solr with data from the cprreplica [DDD0002].



To interface up to solr, both from the master load job and from the web service, the SolrJ[[1]](#footnote-1) (v5.5.0) api is used.

# Solr Master Load

The Solr master load job is triggered as a scheduled job, set to run nightly. When the job is executed, Solr is cleared and then repopulated with data from the cprreplica [DDD0002].

The data is fetched, processed and stored, in chunks of configurable size( read from the configurations table).

## Data processing

Processing consists of combining and inserting data into solr documents.

The husnummerlige field is calculated from the husnummer field and only if this is set, if the husnummer field shouldn’t contain any number, husnummerlige is set to false. The doed field is calculated from the personopl.status field, if the status is 20 or higher, the person will be considered dead.

The adressebeskyttelse part of result, is calculated at the time of running the master load job, and is determined by looking at the adressebeskyttelse type and the start and end dates for the protection.

### Resultat

Resultat is a jaxb generated xml string containing; CPRnummer, navn (fornavn, mellemnavn, efternavn and adrnavn), standard adresse, bynavn , postnummer, postdistrikttekst, kommune (navn, kode and cvr), status, kontaktadresser and adressebeskyttelse(calculated from table personbeskyttelse).

Note: In search bynavn is postdist and in result bynavn is actually bynavn (ex: Search for Ulf Ulling from Aalborg, and you get him as Ulf Ulling from Hasseris)

If beskyttelsestype is 1, adresse beskyttelse is calculated like:

|  |  |  |
| --- | --- | --- |
| Start date | Delete date | Adressebeskyttelse |
| Set | Set | Start <= now < delete |
| Set | Not set | Start <= now |
| Not set | Set | Now < delete |
| Not set | Not set | False |

## Error Handling

If an error occurs during the Solr master load job, a log entry is made in the errorlog, and a SystemKombitException is thrown, with a description of the error.

The error is also logged in the eventlog and is treated as dictated by the errorlog\_treatment table at the time of occurrence.

# Web Service

A user can query data in Solr by calling the webservice CPRQueryService. The operation callCPRPersonList with a supplied searchParameter will validate the query and use SolrJ to forward the query to Solr. If succesfull, the service will return the result that was stored in Solr. The details of this webservice is described in the interface specification [IFS0004].

# Mapping to Datamodel

The searchable fields in Solr maps to the database like the following:

|  |  |
| --- | --- |
| **Solr** | **CPR replica** |
| cprnummer | personaktnavneopl.pnr |
| fornavn | personaktnavneopl.fornvn |
| mellemnavn | personaktnavneopl.melnvn |
| efternavn | personaktnavneopl.efternvn |
| fuldenavn | personaktnavneopl.adrnvn |
| foedselsdato | personopl.foed\_dt |
| koen | personopl.koen |
| doed | personopl.status |
| vejnavn | personklarskriftadr.vejadrnvn |
| husnummer | personklarskriftadr.husnr |
| husnummerlige | personklarskriftadr.husnr |
| etage | personklarskriftadr.etage |
| sidedoer | personklarskriftadr.sidedoer |
| standardadresse | personklarskriftadr.standardadr |
| postnummer | personklarskriftadr.postnr |
| by | personklarskriftadr.postdisttxt |
| vejkode | personklarskriftadr.vejkod |
| kommunecvr | municipality.cvr |
| historiskhusnummer | searchpersonhistadr.husnr |
| historiskvejnavn | searchpersonhistadr.road\_vejnvn |
| historisketage | searchpersonhistadr.etage |
| historisksidedoer | searchpersonhistadr.sidedoer |
| historiskkomunecvr | searchpersonhistadr.komkod |
| historiskvejkode | searchpersonhistadr.vejkod |
| distrikt | search\_divdist.distriktstekst  search\_divdist.distriktskode  searchpersonactadr.road\_byfornyelseskode  searchpersonactadr.road\_byfornyelsesdistrikt  searchpersonactadr.road\_evakueringskode  searchpersonactadr.road\_evakueringsdistrikt  searchpersonactadr.road\_kirkedistriktskode  searchpersonactadr.road\_kirkedistrikt  searchpersonactadr.road\_skolekode  searchpersonactadr.road\_skoledistrikt  searchpersonactadr.road\_socialkode  searchpersonactadr.road\_socialdistrikt  searchpersonactadr.road\_sognedistriktkode  searchpersonactadr.road\_sognedistrikt  searchpersonactadr.road\_valgkode  searchpersonactadr.road\_valgdistrikt  searchpersonactadr.road\_varmekode  searchpersonactadr.road\_varmedistrikt |

The extra fields in the result maps to the database like:

|  |  |
| --- | --- |
| **Resulat** | **CPR replica** |
| Kontaktadresse | personkontaktadr.adr1\_kontaktadr  personkontaktadr.adr2\_kontaktadr  personkontaktadr.adr3\_kontaktadr  personkontaktadr.adr4\_kontaktadr  personkontaktadr.adr5\_kontaktadr |
| Adressebeskyttelse | personbeskyttelse.beskyttype  personbeskyttelse.start\_dt\_beskyttelse  personbeskyttelse.slet\_dt\_beskyttelse  (for calculation see 2.1) |
| kommunenavn | municipality.komnavn |

# References

| **Reference** | **Description** |
| --- | --- |
| [DDD0002] | DDD0002 CPR Replica  SSE/12746/DDD/0032 |
| [IFS004] | IFS0004 CPR Query Service (Solr)  SSE/12746/IFS/0004 |

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1. <https://lucene.apache.org/solr/5_5_0/solr-solrj/overview-summary.html>  
   (accessed 26-05-2016) [↑](#footnote-ref-1)