Digital Mesh

Beyond Imagination

Digital Mesh

Functional Specification Document

DM POP Lead Import

SAMPLE

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INTRODUCTION

This document describes the functional specification for DM POP Lead Import. The customer who needs to buy a used or new car can enquire in any vehicle website and will submit a form from the vehicle website. These details are sent via email to the DM. The email may be of different format with each dealer websites. This enquiry through web site is called a central lead. We need to process different email formats accordingly and extract data for inserting to the Digital Mesh Database.

1 Scope of this feature

This system is intended to allow the import of central leads delivered from vehicle websites to the Digital Mesh Database. This module will be used by dealers having their own website, and users of sites such as Sampletrader, DummyCars etc. The audiences of the system are Sales persons and sales managers.

Out of Scope

- The details are taken by reading e-mails from Mail Server, not through FTP or other methods.

2 Abbreviations / Acronyms

Abbreviation/Acronym	Description
FSD	Functional Specification Document
DM	Digital Mesh
DB	Database
TBD	To Be Decided

3 Feature Requirements

3.1 Feature List

- Able to retrieve data from emails.
- Able to update leads in DM database.

3.2 Pre-requisites

- Should know the format of email sent by each dealer website and create a corresponding template.

3.3 Business Rules

1. A table popleadconfiguration is used for keeping the configuration details of various email formats of vehicle websites.
2. Another table popleadimportlog is used to maintain a log to avoid reading mails of same dealer again and again.
3. The include file _poppathinfo.cfm contains all the configurable variables like location for the dealer xml files, maximum mail count to be read from pop server, webservice path, email addresses for error mails.
4. Configuration details are accepted from form values and inserted into popleadconfiguration table after encryption using the function InsertConfigurationData.

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5. The configuration details includes the details of Dealer's name, POP server details like user name and password, email id of sender, XML name, extract type of email and whether the email should be processed or not.
6. Decrypt and read the configuration values from table using function GetConfigurationData.
7. Find out the mailserver having least entry for ImportDate field in Popleadimportlog Table using function GetPOPLeadImportLog.
8. The mailserver details,dealer xml file name and other information about the above mailserver are obtained from popleadconfiguration table using function GetConfigurationData. Dealerxml file is parsed using ReadXml function.
9. Read mails. Currently we are reading only 10 mails at a time from mail server.
10. Group Mails based on dealers.
11. The email content is processed with the corresponding xml file specified in popleadconfiguration table using function ExtractMailContent. Refer class diagram.
12. Send the extracted data to the web service for importing leads to DM DataBase.
13. If import process is successful, the leadcustomers table in DM DataBase is successfully updated.
14. The table popleadimportlog is updated to identify the dealers that are processed recently.
15. Update the mailserver entry of popleadimportlog table with current date so that it will be processed next time only when all other mailservers are processed once.
16. Delete the read emails from the mail server to maintain storage space.
17. Error details are stored with error codes and its description if the filename doesn't match or if import process is not successful or if any error occurs in between.
18. All errors will be logged and an email is sent with these information to DM team at the end . Email will not be send each and every time when the scheduler encounters an error.
19. This will be setup as a scheduled task to run in a regular interval.
20. All leads will be tagged as Internet for Method of Contact and the actual originator (the dealer name) for Source of Enquiry.

Sample Email format for DummyCars

```
From
www.dummycars.co.uk

You have received an enquiry from the DUMMYCARS network

Contact Details:
Gulam
Email:test@test.com
Telephone: 0778831182
Postcode: CM1 7GB
Preferred method of contact: Telephone

Vehicle Details:
Audi A8 6.0 Quattro 2005 24987
```

Sample Email mapping xml for DummyCars

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```
<?xml version="1.0" encoding="utf-8" ?>
- <dealership name="dummycars">
  - <customername>
      <linenumber>7</linenumber>
      <colstart>1</colstart>
      <colend>24</colend>
    </customername>
  - <email>
      <linenumber>8</linenumber>
      <colstart>7</colstart>
      <colend>21</colend>
    </email>
  - <telephone>
      <linenumber>9</linenumber>
      <colstart>11</colstart>
      <colend>31</colend>
    </telephone>
  - <postcode>
      <linenumber>10</linenumber>
      <colstart>10</colstart>
      <colend>35</colend>
    </postcode>
  - <moc>
      <linenumber>11</linenumber>
      <colstart>29</colstart>
      <colend>45</colend>
    </moc>
  - <make>
      <linenumber>11</linenumber>
      <delimiter>" "</delimiter>
      <position>1</position>
    </make>
  - <model>
      <linenumber>11</linenumber>
      <delimiter>" "</delimiter>
      <position>2</position>
    </model>
  - <specification>
      <linenumber>11</linenumber>
      <delimiter>" "</delimiter>
      <position>3,4</position>
    </specification>
  - <year>
      <linenumber>11</linenumber>
      <delimiter>" "</delimiter>
      <position>5</position>
    </year>
  - <mileage>
      <linenumber>11</linenumber>
      <delimiter>" "</delimiter>
      <position>6</position>
    </mileage>
  </dealership>
```

Sample Email format for Sampletrader

```
From
www.sampletrader.co.uk

To: toby.burton @crawley.audi.co.uk
Subject: ATD Dealer Lead

Dealer Lead from www.autotrader.co.uk

Received: 24 June 2008 10:19

Customer Details:
NAME: MR. Philip Smith
HOME TEL: 01273 582350
WORK TEL: 07902620639
MOBILE: 07902620639
EMAIL: phil3001@hotmail.co.uk
POSTCODE:BN10 7QD

Vehicle Details:
Dealer: Crawley Audi
VEHICLE REG: GR57BHA
MAKE: AUDI
MODEL: A6
PRICE: £28650

Message:
HI IAM REALLY LOOKING FOR AUDI A6 WITH CREAM LEATHER AND WOOD, 2.7
TDI AUTO SALOON IN BLACK OR BLUE, DEMO OR USED? DO YOU HAVE SUCH A
CAR IN STOCK? IF YOU 28 HAVE PLEASE LET ME KNOW.
```

Sample Email mapping xml for Sampletrader

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```
<?xml version="1.0" encoding="UTF-8" ?>
- <dealership name="sampletrader">
  - <customername>
      <start>NAME:</start>
      <end>HOME TEL:</end>
    </customername>
  - <telephone>
      <start>HOME TEL:</start>
      <end>WORK TEL:</end>
    </telephone>
  - <workno>
      <start>WORK TEL:</start>
      <end>MOBILE:</end>
    </workno>
  - <mobile>
      <start>MOBILE:</start>
      <end>EMAIL:</end>
    </mobile>
  - <email>
      <start>EMAIL:</start>
      <end>POSTCODE:</end>
    </email>
  - <postcode>
      <start>POSTCODE:</start>
      <end>Vehicle Details:</end>
    </postcode>
  - <dealer>
      <start>Dealer:</start>
      <end>VEHICLE REG:</end>
    </dealer>
  - <vehiclereg>
      <start>VEHICLE REG:</start>
      <end>MAKE:</end>
    </vehiclereg>
  - <make>
      <start>MAKE:</start>
      <end>MODEL:</end>
    </make>
  - <model>
      <start>MODEL:</start>
      <end>PRICE:</end>
    </model>
  - <price>
      <start>PRICE:</start>
      <end>Message:</end>
    </price>
  - <notes>
      <start>Message:</start>
      <end />
    </notes>
</dealership>
```

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The following table is used for importing leads

- **Xchangecentralleads** (id,agencypassword,infoondb,companyid,title,forename,surname,name,address1,address2,address3,town,postcode,tel,workno,mobile,fax,email,website,moc,salesmanid,salesmanname,newused,nextmake,nextmodel,nextspec,nextcolour,nextcarrequiredate,nextreg,nextcost,presmake,presmodel,presspec,presreg,presmodelspec,prescolour,presdelivery,presmileage,presyear,presowners,presmot,prestax,presspecextra,notes,timedate,enqsource,dpa,extdburn,enquirytype,budgeted,changemonth,updatetolive)
- **Popleadimportlog** (ID,PopServerName,ImportDate,ReadComplete,UserName)
- **Popleadconfiguration** (ID,dealer,popname,username,password,filename,vendorDMemail,extracttype,process,IsDeleted)

- **Field Mapping**

Values getting from mail	Xchangecentralleads Table field
price	**TBD**
DirectedFrom	**TBD**
Transmission	**TBD**
Fuel	**TBD**
year	**TBD**
Interior	**TBD**
mileage	**TBD**
Retail (hard coded value)	Enquirytype
Internet (hard coded value)	moc
Dealer name	enqsource
customername	title
customername customername	Forename surname
customername	Name
postcode	postcode
telephone	tel
workno	workno
mobile	mobile
email	Email
DM (hard coded value)	Website
make	nextmake
model	nextmodel

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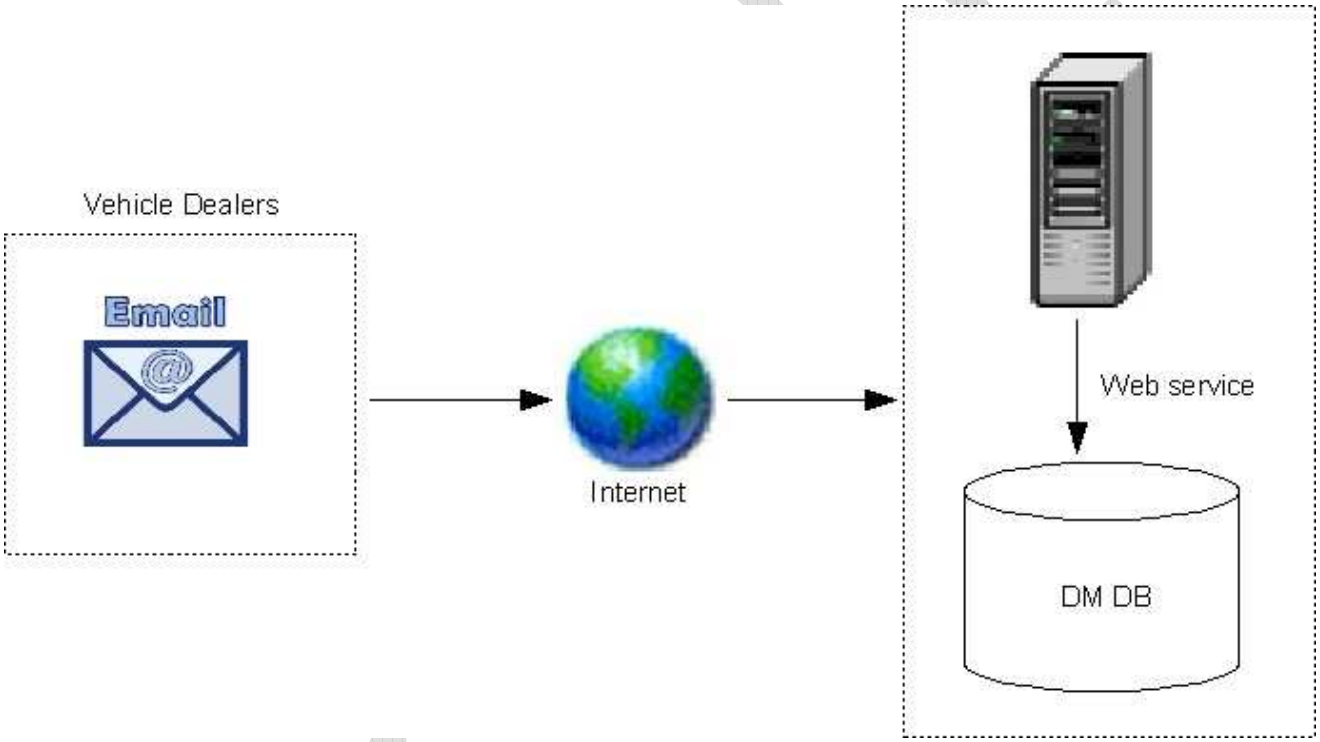
Specification	nextspec
Colour	Nextcolour
Vehiclereg,Registration	Nextreg
Registered	Nextcarrequiredate
notes	notes

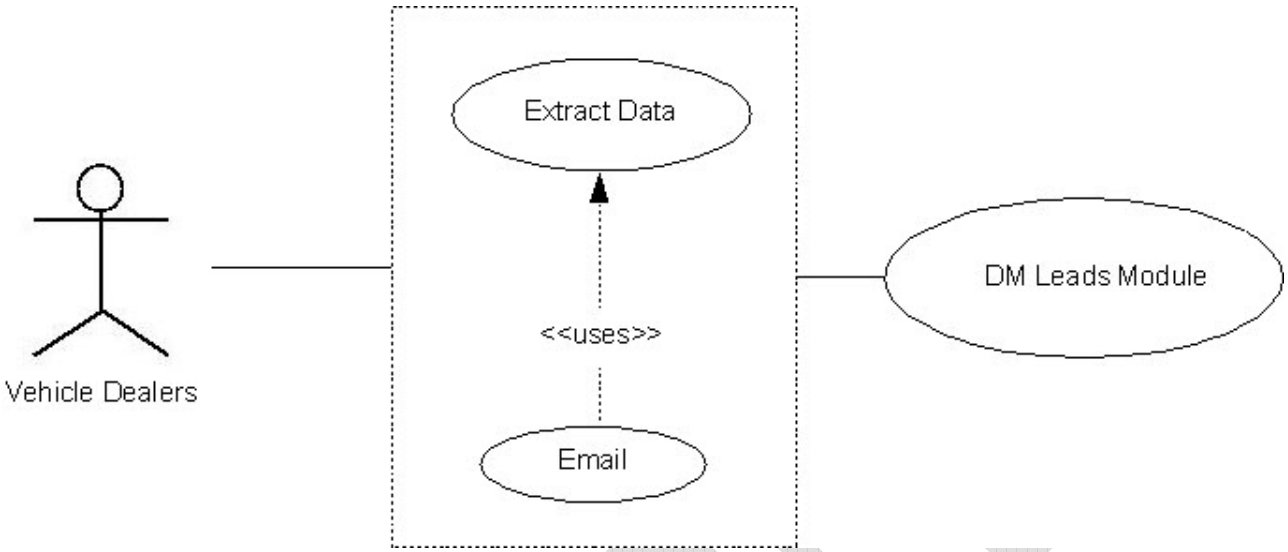
3.4 Functional level Unit Test Cases

Add an enquiry from any vehicle website. The scheduler runs automatically in a regular interval. This should get updated to leadcustomers table. Check whether the enquiry got added to leadcustomers table.

4 Workflow



4.1 Use Case



4.2 Class Diagram

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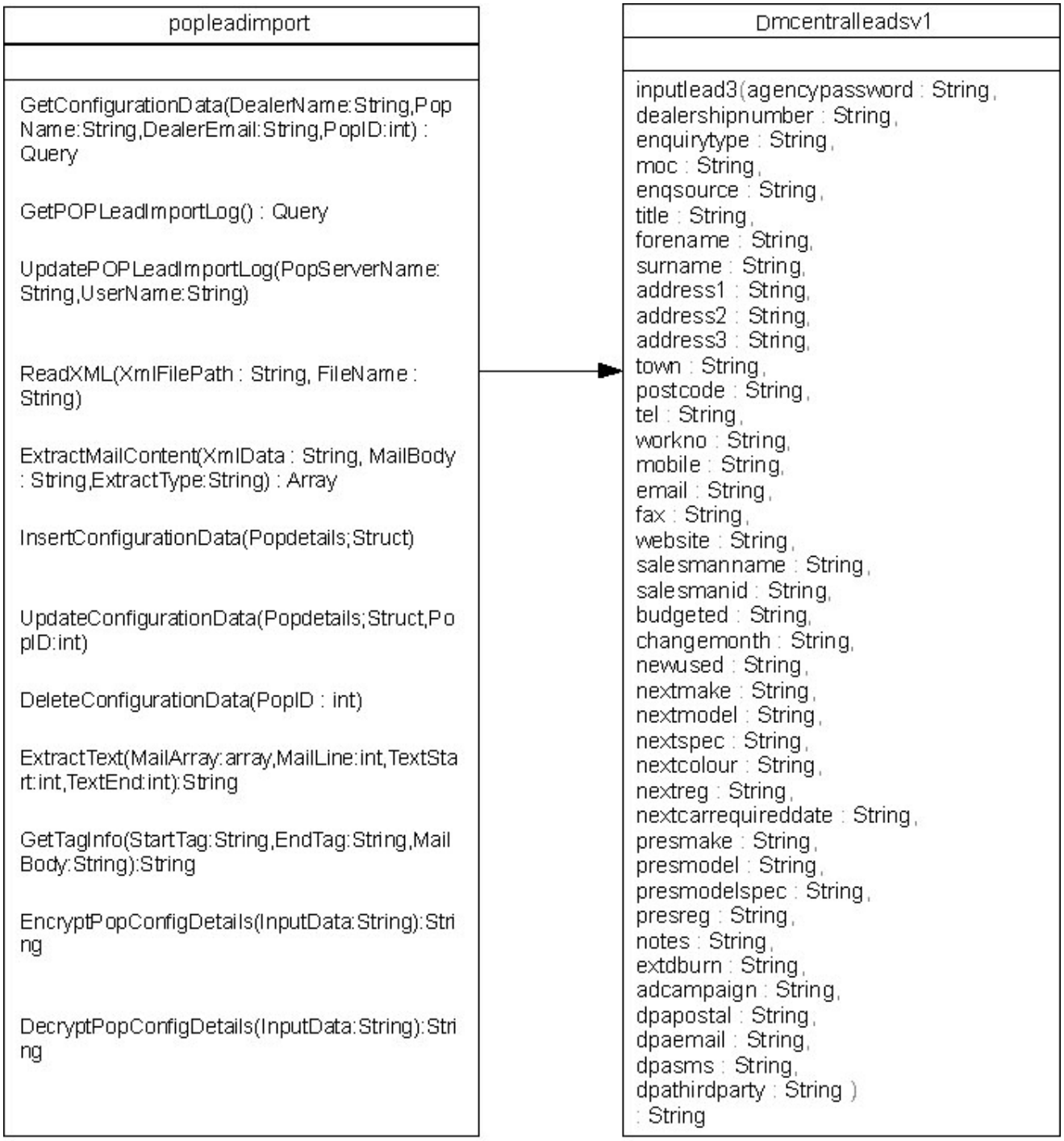
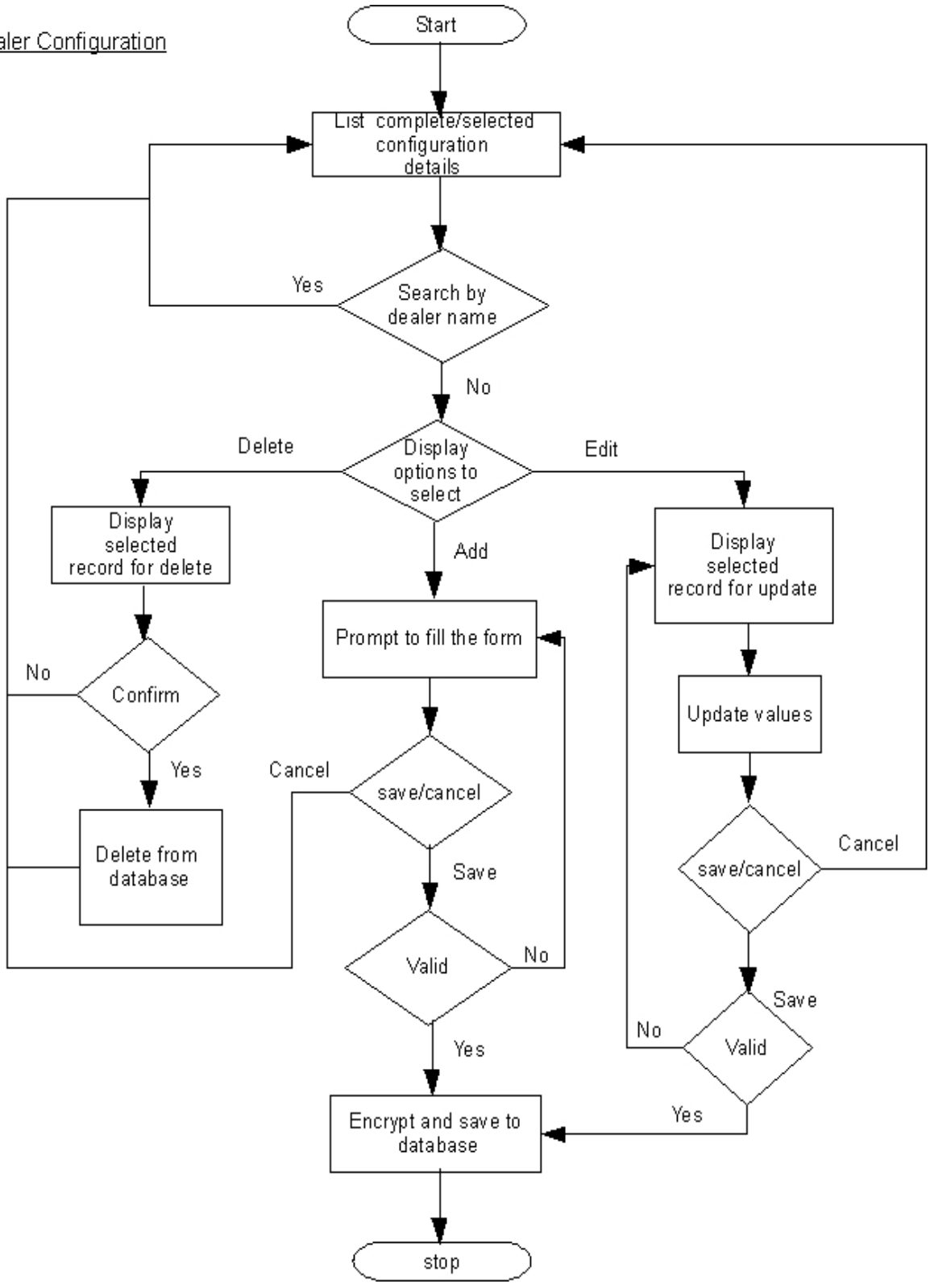
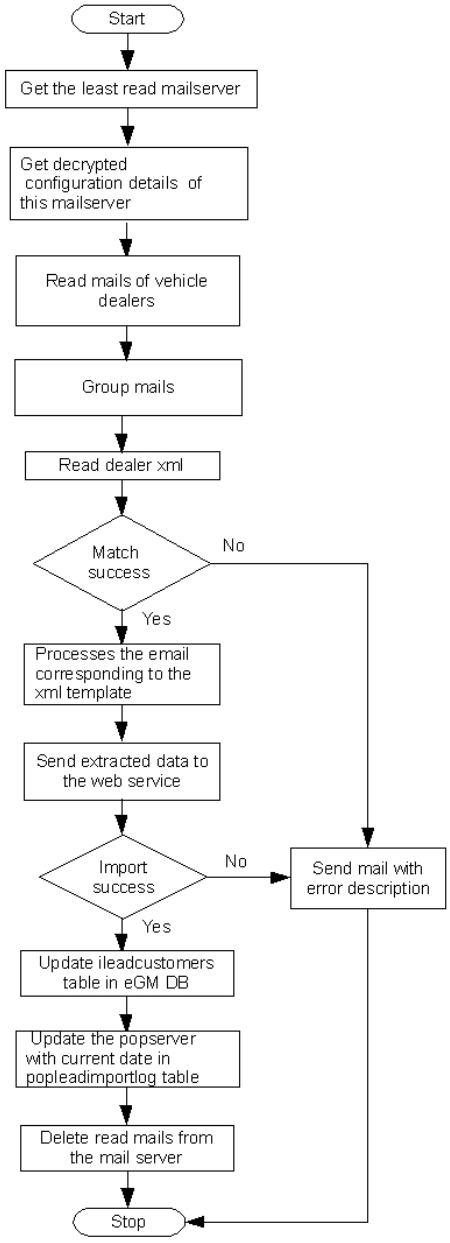


4.3 Flow chart

Dealer Configuration



Full process



5 Configurable Parameters (If any)

Parameter	Description
popleadconfiguration table	XML files of each dealer website which are to be used are mentioned in the table popleadimportconfig
_poppathinfo.cfm	All configurable parameters in this file.

6 Access Control

As in the existing DM application. Access for scheduler and Web services. - **TBD**

7 Deployment Details

Webservices Files – webservice server (http://webservices.dmserver.com)
CFC files - Application server
XML files - Application server
CFM files - Application server

note : we are using the existing web service http://webservice.dmserver.com/webservices/DMcentralleadsv1.cfc for importing leads to DM database.

File Name	Folder	New/Existing
popleadimport.cfm	/DM/popleadimport/popleadimport.cfm	**New**
displayerrors.cfm	/DM/popleadimport/displayerrors.cfm	**New**
popleadimport.cfc	/DM/popleadimport/model/popleadimport.cfc	**New**
DMcentralleadsv1.cfc	webservices.dmserver.com/webservices/DMcentralleadsv1.cfc	**Existing**
popconfigdetails.cfm	/DM/popleadimport/popconfigdetails.cfm	**New**
dummycars.xml	/DM/popleadimport/vcars.xml	**New**
Sampltrader.xml	/DM/popleadimport/autotrader.xml	**New**
crawleyaudi.xml	/DM/popleadimport/crawleyaudi.xml	**New**
motors.xml	/DM/popleadimport/motors.xml	**New**
_poppathinfo.cfm	/DM/popleadimport/includes/_poppathinfo.cfm	**New**

8 Future Enhancements

The details can be imported as CSV through FTP.

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