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| **Philly CRM 311**  **Technical Design – Hansen (L&I) System Integration**  **1.4** |
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**Revision History**

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| --- | --- | --- | --- |
| **Revision Number** | **Revision Date** | **Summary of Changes** | **Author** |
| Draft | 05/24/2014 | Created Draft | Prabhakar/ Murugaboopathi |
| 1.0 | 07/28/2014 | Updated with latest Requirement changes | Prabhakar/ Murugaboopathi |
| 1.1 | 08/21/2014 | Updated on Problem Code mapping and new Case fields mapping | Prabhakar/ Murugaboopathi |
| 1.2 | 08/28/2014 | Updated on Problem Code for Other Dangerous | Prabhakar/Murugaboopathi |
| 1.3 | 01/19/2015 | Updated on overview, Problem code, Added a table for Details field, updated Service Request Submit description | Brindha/ Sreelatha SK |
| 1.4 | 02/20/2015 | Updated Vacant Lot Clean-Up for CLIP SR | Sreelatha SK |

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# Introduction

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| 1.1 Document Purpose |

The purpose of this document is to provide technical design details needed to successfully implement Hansen (L&I) integration for Philly311 CRM.

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| 1.2 System Overview |

Philly 311 CRM provides 311 Agents, 311 Supervisors, 311 Managing Directors, Departmental SMEs, Department Leadership, and City Leadership to leverage Salesforce.com functionality to engage and provide new outreach opportunities with the Community Partners. Philly 311 CRM provides ability to look Customer info, Knowledge Base to help Agents, Maintain service requests, and generate analytical reporting to support decision making process, establish more channels (using Social Media) and collaborate using chatter.

# Hansen (L&I) System Integration

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| 2.1 Overview |

The purpose of this document is to provide technical design details needed to successfully implement Hansen Integration for Philly311 CRM. The solution provides seamless bi-directional integration to Hansen oracle instance and Salesforce.com.

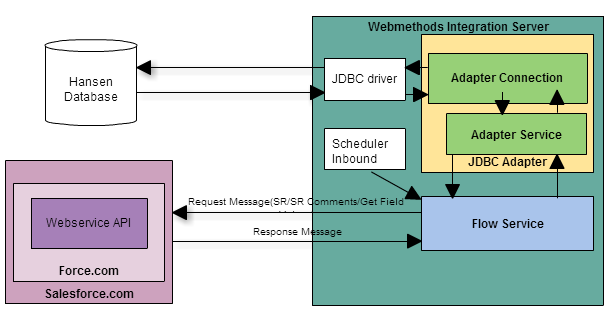


Diagram 1.1 – Architecture of Hansen (L&I) Integration

The following are the actions addressed by the Hansen Integration Process:

* Creation of a Request in the Hansen Instance based on a newly created Salesforce case
  + Updating of limited data on the Salesforce case based on key information from the newly created Hansen request.
* Creation of a Comments record on a Salesforce case based on a newly created Comments record on a Hansen request in the Hansen Database.
* Modification of status data on a Salesforce case based on changes to the status of the Hansen Work Request, which includes closing the Salesforce case.

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| 2.2 CONFIGURATION |

All communication between systems is done using standard HTTP/HTTPS based services – REST and SOAP.

All communication between the Integration Server and Hansen Oracle Database will be done through JDBC Adapter of integration server.

All communication between the Integration Server and Salesforce will be done using SOAP interfaces. Both Inbound and Outbound SOAP interfaces are a built in features of Integration Server.

The following sections provide a detailed description on the inbound and outbound data flows between the Hansen, the Integration Server and Salesforce.

### Inbound Data Flow

Inbound data elements from the Hansen Department will be:

* Case Status
* Case Comments

These data elements will be pulled for any changes using Scheduled Flow Service Job at Integration Server Scheduling. Flow service inter uses JDBC Adapter service to update the tracking table and also updates the appropriate Case by invoking case using Salesforce Webservice. This Integration Server service will run every x minutes (current is 15 minutes).

###### Implemented By

Hansen Department

###### Returns

The service does not return anything, but updates the SFDC with Status & Comments. Below table shows the fields that are retrieved from Hansen and Mapped to SFDC.

| **Parameter** | **Data Type** | **Description** | **Map to** |
| --- | --- | --- | --- |
| requestID | String | request Id | Case.CaseId |
| Servno | String | problem ID, mapped to Problem Type | Case.Hansen\_RequestID\_\_c |
| finishDateDatetime | DateTime |  |  |
| Status | String |  | Case.Status |
| dateRecordedInSalesForce | DateTime |  |  |
| Comments | String | Latest comment from Hansen | CaseComment.CommentBody |

###### Authentication

Hansen oracle connection is needed from Integration Server.

###### Exceptions and Logging

Error occurring when making call to Hansen will be recorded to the Integration Server error log and will cause system administrators to be notified by email. This service is designed to only insert new comments and can be restarted once all issues have been resolved.

###### Salesforce Web Service API

See <http://www.salesforce.com/us/developer/docs/api/index_Left.htm>

### Outbound Data Flow

Outbound data flow from Salesforce to Hansen Department will be Service Request submissions

The outbound flow will be triggered using the Salesforce Outbound Messaging feature. Salesforce Outbound Messaging allows us to specify that changes to fields within Salesforce can cause messages with field values to be sent to designated external servers via SOAP message. Integration Server web services will be developed to receive these messages and propagate those changes to integrated systems. Salesforce Outbound Messages are initiated by workflows within Salesforce. Workflows will be created to detect Case status changes and creation of new Case Comments. A description of the Outbound Messaging SOAP message structure can be found at <http://www.salesforce.com/us/developer/docs/api/Content/sforce_api_om_outboundmessaging.htm>

#### Service Request Submit

For Case submissions, Salesforce will call an Integration Server web services with Case field values needed to create a Hansen Service Request, which will then use JDBC Adapter service to submit the Service Request.

There are three tables that needs to be updated from Adapter Service CUSTPROB, CUSTCALL and CUSTINFO tables of Hansen Database. If the CRM case is not present in Hansen Database (by checking CUSTPROB.BGTNO field), New CUSTPROB Record is created along with Caller information and Call information in CUSTINFO and CUSTCALL respectively. CUSTPROB.SERVNO is the unique field and CALLRKEY of CUSTCALL is associated with SERVNO. CALLRKEY can give CUSTINFO information.

There are two scenarios where Hansen request is not added to the database and just additional caller functionality is implemented.

##### SCENARIO 1:

CRM Record present for the same address location:

If a CRM Record is present for the same address location, then the Case is considered a duplicate and it is an Additional Caller functionality on Hansen Side. In this scenario, only CUSTCALL and CUSTINFO records are added to the existing case.

##### SCENARIO 2:

Hansen Record already exists:

Another Additional Caller scenario is that when there is an existing Service Request (CUSTPROB record) in Hansen and the corresponding Case is not available in Philly CRM. For the same SR in Hansen, if a new request comes in at the Philly CRM side, this case is considered new in Philly CRM and it gets routed to Hansen. In case of Hansen, Hansen Address Key field of Case object to ADDRKEY of CUSTPROB table needs to be verified. If a SR record already exists in Hansen, then it has to be also considered Additional Caller functionality, thereby updating just the caller tables.

##### Service Request Create Outbound Message

Standard Salesforce Outbound SOAP message. SOAP interface implemented by Integration Server.

###### Triggering Workflow

The workflow used for triggering the outbound message to Hansen is **SFDC to Hansen**. The outbound message would be triggered only if the conditions in the workflow are satisfied. The details of the workflow is as follows.

|  |  |
| --- | --- |
| Rule Name | SFDC to Hansen |
| Active | True |
| Rule Criteria | (Case: Department EQUALS License & Inspections)  AND  (Case: Service Request Type NOT EQUAL TO Service Not Needed)  AND  (Case: Status NOT EQUAL TO Closed)  AND (Case: Type NOT EQUAL TO Information Request Type ,Directory Assistance)  AND  (Case: Hansen Request ID EQUALS null)  AND  (Case: HANSEN Problem Code NOT EQUAL TO null)  AND  (Case: SAG Case Owner NOT EQUAL TO 00GG0000003kuSh)  AND  (Case: Novo Ticket EQUALS null)  AND  (Case: Centerline 2272x NOT EQUAL TO null)  AND  (Case: Centerline 2272x NOT EQUAL TO 0.0) |
| Object | Case |
| Evaluation Criteria | Evaluate the rule when a record is created, and every time it’s edited |

###### Case Service Request Type Mapped to Hansen Problem code

Service request type is mapped to problem code of Hansen through a formula field and the problem code value is used to pull Priority (CUSTPROB.PRI) and Responsibility (CUSTPROB.RESP). These are used to create a new record in CUSTPROB table. Refer Appendix A

###### Mapped to Hansen Problem code and corresponding Priority and Responsibility

PROBCODE field determines the value of PRI. There is a trigger at the background takes the PROBCODE value in a field called PROB that assigns the value of RESP. Below tables is only for PRI reference and RESP field is calculated at the Hansen side.

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **PROBCODE** | **PROBDESC** | **PRI** |
| 1 | SBD | SPECIAL BUILDING DANGEROUS | U |
| 2 | SOD | SPECIAL OTHER DANGEROUS | I |
| 3 | STD | SPECIAL TREE DANGEROUS | I |
| 4 | SMR | SPECIAL MAINTENANCE RESIDENTIAL | NH |
| 5 | SVH | SPECIAL VACANT HOUSE | NH |
| 6 | SVLR | SPECIAL VACANT LOT RESIDENTIAL | NH |
| 7 | SHM | SPECIAL HAZARDOUS MATERIAL | NH |
| 8 | SMC | SPECIAL MAINTENANCE COMMERCIAL | NH |
| 9 | SVC | SPECIAL VACANT COMMERCIAL | NH |
| 10 | SVLC | SPECIAL VACANT LOT COMMERCIAL | NH |
| 11 | SBC | SPECIAL BUILDING CONSTRUCTION | CONS |
| 12 | SEC | SPECIAL ELECTRICAL CONSTRUCTION | CONS |
| 13 | SPC | SPECIAL PLUMBING CONSTRUCTION | CONS |
| 14 | SERV | SERVICE CALL | I |
| 15 | RDAVH | REDEVELOPMENT AUTHORITY - VACANT HOUSE CONDEMNATION | NH |
| 16 | PENN | ALL PENN ISSUES WILL BE ASSIGNED TO HCEU | NH |
| 17 | NSBR | NEIGHBORHOOD SERVICES BLIGHT REMOVAL | NH |
| 18 | IT |  |  |
| 19 | SC | SPECIAL CIRCUMSTANCE | NH |
| 20 | ODO | OTHER DANGEROUS OCCUPIED | I |
| 21 | BDH | BUILDING DANGEROUS HISTORICAL | U |
| 22 | TDO | TREE DANGEROUS OCCUPIED | I |
| 23 | ASSGN | ASSIGN DYNAMIC PORTAL | NH |
| 24 | CSVIO | CONTRACTUAL SERVICES VIOLATIONS | U |
| 25 | EMERG | EMERGENCY | U |
| 26 | NSBRD | DRAINAGE COMPLAINT | NH |
| 27 | NSBRE | EXTERIOR COMPLAINT | NH |
| 28 | NSBRL | VACANT LOT | NH |
| 29 | NSBRV | VACANT HOUSE | NH |
| 30 | DP26 | VACANT LOT COMMERCIAL | NH |
| 31 | DP27 | VACANT LOT RESIDENTIAL | NH |
| 32 | VL | VACANT LOTS (CLIP) | NH |
| 33 | NHC | HEAT COMPLAINTS IN COMMERCIAL BUILDING | H |
| 34 | BDO | BUILDING DANGEROUS OCCUPIED | U |
| 35 | DEMO | COMPLAINTS ASSOCIATED WITH DEMOS | U |
| 36 | DKC | DECK CONSTRUCTION | H |
| 37 | DP01 | BLOCKED DRAIN COMMERCIAL | NH |
| 38 | DP02 | BLOCKED DRAIN RESIDENTIAL | NH |
| 39 | DP03 | BOARDING OR ROOMING HOUSE | NH |
| 40 | DP04 | BUGS OR MICE | NH |
| 41 | DP05 | BUILDING FALLING - PLEASE DESCRIBE | NH |
| 42 | DP06 | CONSTRUCTION IN PROGRESS WITHOUT PERMIT | NH |
| 43 | DP07 | DAYCARE CENTER COMMERCIAL | NH |
| 44 | DP08 | DAYCARE RESIDENTIAL | NH |
| 45 | DP09 | ELECTRICAL WORK IN PROGRESS WITHOUT PERMIT | NH |
| 46 | DP10 | FREE STANDING RETAINING WALL FALLING | NH |
| 47 | DP11 | HIGH GRASS OR WEEDS COMMERCIAL | NH |
| 48 | DP12 | HIGH GRASS OR WEEDS RESIDENTIAL | NH |
| 49 | DP13 | ILLEGAL BUSINESS | NH |
| 50 | DP14 | INSTALLATION OF POOL WITHOUT PERMIT | NH |
| 51 | DP15 | NO RENTAL LICENSE | NH |
| 52 | DP16 | OCCUPIED RESIDENCE WITHOUT HEAT | NH |
| 53 | DP17 | PLUMBING WORK IN PROGRESS WITHOUT PERMIT | NH |
| 54 | DP18 | ROOF LEAK COMMERCIAL | NH |
| 55 | DP19 | ROOF LEAK RESIDENTIAL | NH |
| 56 | DP20 | STAGNANT POOL WATER | NH |
| 57 | DP21 | TRASH OR DEBRIS COMMERCIAL | NH |
| 58 | DP22 | TRASH OR DEBRIS RESIDENTIAL | NH |
| 59 | DP23 | TREE FALLING SPECIFY AREA OF PROPERTY | NH |
| 60 | DP24 | VACANT BUILDING COMMERCIAL | NH |
| 61 | DP25 | VACANT HOUSE RESIDENTIAL | NH |
| 62 | DP28 | WATER IN BASEMENT COMMERCIAL | NH |
| 63 | DP29 | WATER IN BASEMENT RESIDENTIAL | NH |
| 64 | ED | EMERGENCY DANGEROUS | I |
| 65 | DRGMC | DRAINAGE MAINTENANCE COMMERCIAL TO CI | H |
| 66 | DRGMR | DRAINAGE MAINTENANCE RESIDENTIAL TO HCEU | H |
| 67 | SOC | SERVICES & OPERATIONS CLOSE |  |
| 68 | SGNZP | SIGN ILLEGAL | NH |
| 69 | SGNDN | SIGN DANGEROUS | I |
| 70 | SR311 | SERVICE REQUEST FROM 3-1-1 | NH |
| 71 | BC | BUILDING CONSTRUCTION | CONS |
| 72 | DCC | DAY CARE COMMERCIAL | NH |
| 73 | BMC | BUILDING MAINTENANCE COMMERCIAL | NH |
| 74 | BRH | BOARDING OR ROOMING HOUSE | NH |
| 75 | DCR | DAY CARE RESIDENTIAL | NH |
| 76 | EC | ELECTRICAL CONSTRUCTION | CONS |
| 77 | EMC | ELECTRICAL MAINTENANCE COMMERCIAL | NH |
| 78 | EMR | ELECTRICAL MAINTENANCE RESIDENTIAL | NH |
| 79 | FR | FIRE RESIDENTIAL | NH |
| 80 | L | LICENSE | NH |
| 81 | NE | NO ELECTRIC | NH |
| 82 | NG | NO GAS | NH |
| 83 | NH | NO HEAT | H |
| 84 | NU | NO UTILITIES | H |
| 85 | NW | NO WATER | NH |
| 86 | PMC | PLUMBING MAINTENANCE COMMERCIAL | NH |
| 87 | OC | OVERCROWDED – COMMERCIAL | H |
| 88 | OR | OVERCROWDED – RESIDENTIAL | NH |
| 89 | PC | PLUMBING CONSTRUCTION | CONS |
| 90 | PMR | PLUMBING MAINTENANCE RESIDENTIAL | NH |
| 91 | RM | RESIDENTIAL MAINTENANCE | NH |
| 92 | TD | TREE DANGEROUS | U |
| 93 | VC | VACANT COMMERCIAL | NH |
| 94 | VH | VACANT HOUSE | NH |
| 95 | VLC | VACANT LOT COMMERCIAL | NH |
| 96 | VLR | VACANT LOT RESIDENTIAL | NH |
| 97 | WM | WEIGHTS & MEASURES | NH |
| 98 | X | OTHER | NH |
| 99 | Z | ZONING | NH |
| 100 | HM | HAZARDOUS MATERIAL | H |
| 101 | ZR | ZONING RESIDENTIAL | NH |
| 102 | ZB | ZONING BUSINESS | NH |
| 103 | MC | MAINTENANCE COMMERCIAL | NH |
| 104 | MR | MAINTENANCE RESIDENTIAL | NH |
| 105 | LB | LICENSE BUSINESS | NH |
| 106 | ZC | ZONING CONSTRUCTION | CONS |
| 107 | IR | INFESTATION RESIDENTIAL | H |
| 108 | OD | OTHER DANGEROUS | U |
| 109 | BDS | BUILDING DANGEROUS SINKING | I |
| 110 | ZM | ZONING MISCELLANEOUS | NH |
| 111 | MRE | MAINTENANCE RESIDENT ELECTRIC | NH |
| 112 | NTA |  | NH |
| 113 | MRP | MRP-MAINTENANCE RESIDENTIAL PLUMBING | H |
| 114 | NTF | NUISANCE TASK FORCE | H |
| 115 | WMC | WEIGHTS & MEASURES COMPLAINTS | NH |
| 116 | WFO | WEIGHTS & MEASURES FUEL OIL | NH |
| 117 | WGS | WEIGHTS & MEASURES GAS STATIONS | H |
| 118 | WMP | WEIGHTS & MEASURES PARKING | NH |
| 119 | WSN | WEIGHTS & MEASURES SCANNERS | NH |
| 120 | WSL | WEIGHTS & MEASURES SCALES | NH |
| 121 | FC | FIRE COMMERCIAL | NH |
| 122 | BMR | BUILDING MAINTENANCE RESIDENTIAL | NH |
| 123 | BD | BUILDING DANGEROUS | U |
| 124 | NH1 | NO HEAT | H |
| 125 | NH2 | NO HEAT | H |
| 126 | LR | LICENSE RESIDENTIAL | NH |
| 127 | DC | DAY CARE | NH |
| 128 | CP | COMMUNITY LIFE IMPROVEMENT PROGRAM | NH |
| 129 | LEAD | LEAD ABATEMENT HEALTH DEPT | H |
| 130 | REF | REFERRAL | NH |
| 131 | LC | LICENSE CONSTRUCTION | CONS |
| 132 | SY | SCRAP YARD | H |
| 133 | BLK | BLOCKED |  |
| 134 | PRJ | PROJECT |  |
| 135 | SIGN | SIGNAGE |  |
| 136 | CSTF | CONSTRUCTION SITE TASK FORCE | NH |

*From Case object:*

| **Parameter** | **Data Type** | **Description** |
| --- | --- | --- |
| CaseNumber |  |  |
| Case\_Record\_Type\_\_c |  |  |
| Centerline\_2272x\_\_c |  |  |
| Centerline\_2272y\_\_c |  |  |
| City\_\_c |  |  |
| ContactId |  |  |
| CreatedDate |  |  |
| Customer\_Request\_Id\_\_c |  |  |
| Department\_\_c |  |  |
| Description |  |  |
| Details\_\_c |  | CityworksTrigger is used to concatenate each field's value to one string Details |
| HANSEN\_Problem\_Code\_\_c | String | Problem Code of Hansen (PROB field of CUSTPROB table) |
| Hansen\_Request\_ID\_\_c | String | Unique ID of Hansen Service Request |
| Id |  |  |
| Issue\_\_c |  |  |
| Origin |  |  |
| ParentId |  |  |
| Problem\_Type\_Highways\_\_c |  |  |
| Problem\_Type\_Sanitation\_\_c |  |  |
| Problem\_Type\_\_c |  |  |
| PublicStuff\_Custom\_Fields\_\_c |  |  |
| Redress\_Case\_\_c |  |  |
| Redressed\_Case\_Number\_\_c |  |  |
| Redressed\_Street\_Request\_Id\_\_c |  |  |
| Resurfacing\_Defect\_\_c |  |  |
| Resurfacing\_Request\_\_c |  |  |
| SAG\_Contact\_City\_\_c |  |  |
| SAG\_Contact\_Email\_\_c |  |  |
| SAG\_Contact\_First\_Name\_c\_\_c |  |  |
| SAG\_Contact\_Last\_Name\_\_c |  |  |
| SAG\_Contact\_Mobile\_Phone\_\_c |  |  |
| SAG\_Contact\_Phone\_\_c |  |  |
| SAG\_Contact\_State\_Code\_\_c |  |  |
| SAG\_Contact\_State\_\_c |  |  |
| SAG\_Contact\_Street\_\_c |  |  |
| SAG\_Contact\_Type\_\_c |  |  |
| SAG\_Contact\_Zip\_\_c |  |  |
| SAG\_Parent\_Case\_Number\_\_c |  |  |
| SAG\_Problem\_SID\_\_c |  |  |
| Service\_Request\_Type\_\_c |  |  |
| Source\_\_c |  |  |
| State\_\_c |  |  |
| Status |  |  |
| Street\_\_c |  |  |
| ZipCode\_\_c |  |  |
| Zip\_code\_\_c |  |  |
| hansenAddressKey\_\_c | String | Address key field is populated through GIS |

The custom fields that are sent for each SR through the details field is as follows:

|  |  |
| --- | --- |
| **Service Request Type** | **Salesforce Fields** |
| Boarding Room House | Number\_of\_Unrelated\_Tenants\_\_c Rental\_License\_\_c  Zoning\_Permit\_\_c  Customer\_is\_a\_Tenant\_\_c  Does\_Owner\_Reside\_at\_Property\_\_c  Property\_Owner\_Name\_\_c  Property\_Owner\_Phone\_Number\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| Building Construction | Type\_of\_Work\_Being\_Done\_\_c  Valid\_Permit\_\_c  Unsafe\_Conditions\_\_c  Where\_is\_Work\_Being\_Done\_\_c  Day\_of\_Week\_Work\_Being\_Done\_\_c  Contractor\_Company\_Name\_\_c  Sparking\_Wires\_or\_Illegal\_Hookups\_\_c  Fence\_Paved\_Area\_or\_Shed\_\_c  Fence\_Location\_\_c  Fence\_Height\_Feet\_\_c  Storage\_Shed\_Location\_\_c  Storage\_Shed\_Size\_Square\_Feet\_\_c  Paved\_Area\_to\_Create\_Parking\_Space\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| Building Dangerous | Building\_Collapsing\_\_c  Under\_Construction\_or\_Demolition\_\_c  Emergency\_Repairs\_for\_Facade\_\_c  Location\_of\_Dangerous\_Condition\_\_c  Historical\_Building\_\_c  Vacant\_or\_Occupied\_\_c  Residential\_or\_Commerical\_\_c  House\_or\_Apartment\_Complex\_\_c  Single\_or\_Multi\_Family\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| Construction Site Task Force | Building\_Collapsing\_\_c  Permit\_Visible\_And\_Or\_Displayed\_\_c  Building\_Under\_Construction\_or\_Demolitio\_\_c  Type\_of\_Work\_Being\_Done\_\_c  Vallid\_Permit\_\_c  Contractor\_Company\_Name\_\_c  Unlicensed\_Contractors\_Performing\_Work\_\_c  Demolition\_or\_Construction\_\_c  Threatening\_Public\_Safety\_\_c  Private\_Demolition\_\_c  Construction\_or\_Demolition\_Debris\_Causin\_\_c  Demolition\_State\_\_c  Sidewalk\_Blocked\_Without\_Permission\_\_c  Work\_Performed\_Before\_After\_Hours\_Withou\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| Daycare Residential or Commercial | Residential\_or\_Commerical\_\_c  Daycare\_Business\_Name\_\_c  One\_or\_Two\_Family\_Dwelling\_\_c  Hours\_of\_Operation\_\_c  Violation\_Type\_Daycare\_\_c  Family\_Daycare\_License\_\_c  Food\_Preparation\_and\_Service\_License\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| Emergency Air Conditioning | Heat\_Emergency\_\_c  Residential\_Windows\_Inoperable\_\_c  Nursing\_Personal\_Care\_Home\_Hospital\_\_c  How\_Many\_Days\_Without\_Air\_Conditioning\_\_c  Health\_Care\_Facility\_Name\_\_c  Name\_if\_Not\_Verified\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| Fire Residential or Commercial | Hazardous\_Materials\_Spill\_\_c  Specific\_Location\_of\_Fire\_Code\_Violation\_\_c  Residential\_or\_Commerical\_\_c  Residential\_Property\_Type\_\_c  Unit\_Number\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| Infestation Residential | Residential\_or\_Commerical\_\_c  Unit\_Number\_\_c  Infestation\_Type\_\_c  Tenant\_in\_Single\_Family\_Dwelling\_\_c  Report\_Type\_\_c  Residential\_Property\_Type\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| License Residential | License\_to\_Rent\_\_c  Property\_Owner\_Name\_\_c  Zoning\_Permit\_\_c  Property\_Owner\_Contact\_Information\_\_c  Property\_Type\_\_c  Apartment\_Number\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| Maintenance Residential or Commercial | Residential\_or\_Commerical\_\_c  Exterior\_or\_Interior\_\_c  Property\_Owner\_Name\_\_c  Property\_Owner\_Contact\_Information\_\_c  Residential\_Property\_Type\_\_c  Drainage\_Problem\_\_c  Unit\_Number\_\_c  Flooded\_Residential\_Basement\_\_c  Problem\_Location\_at\_House\_or\_Unit\_\_c  Adult\_Present\_to\_Provide\_Access\_to\_Inspe\_\_c  Is\_Customer\_the\_Property\_Owner\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| No Heat (Residential) | Residential\_or\_Commerical\_\_c  Residential\_Property\_Type\_\_c  Unit\_Number\_\_c  Heat\_Type\_\_c  Number\_of\_Days\_Without\_Heat\_\_c  Owner\_Name\_\_c  Owner\_Address\_\_c  Owner\_Phone\_Number\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| Other Dangerous | Structure\_Collapsing\_\_c  Under\_Construction\_or\_Demolition\_\_c  Structure\_Type\_\_c  Location\_of\_Dangerous\_Condition\_\_c  Vacant\_or\_Occupied\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| Tree Dangerous | Life\_Threatening\_Condition\_\_c  Tree\_Between\_Sidewalk\_and\_Curb\_\_c  Tree\_on\_Side\_Street\_\_c  Tree\_on\_Power\_Lines\_No\_Smoke\_Fire\_\_c  Blocked\_Street\_Sidewalk\_Home\_Access\_\_c  On\_Property\_of\_Person\_Making\_Report\_\_c  Overgrown\_or\_Aready\_Fallen\_\_c  Growing\_in\_Vacant\_Building\_\_c  Branches\_Break\_Easily\_\_c  Leaves\_in\_Spring\_and\_Summer\_\_c  Animals\_Living\_in\_Tree\_\_c  Dead\_or\_Alive\_Tree\_\_c  How\_Many\_Trees\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| Vacant House or Commercial | Residential\_or\_Commerical\_\_c  Unsafe\_Violations\_\_c  Valid\_License\_\_c  Property\_Open\_to\_Trespass\_on\_First\_or\_Gr\_\_c  Access\_to\_Rear\_of\_Property\_for\_Inspectio\_\_c  How\_to\_Access\_Rear\_of\_Property\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| Zoning Business | Request\_Type\_\_c  Property\_Improperly\_Used\_as\_Residential\_\_c  Commercial\_or\_Residential\_\_c  Current\_Property\_Use\_\_c  Business\_Hours\_of\_Operation\_\_c  Business\_Type\_\_c  Sign\_on\_Street\_Pole\_Median\_or\_Curb\_\_c  Sign\_Location\_\_c  Honor\_Box\_Outside\_Regulated\_Area\_\_c  Honor\_Box\_Improperly\_Maintained\_\_c  Seeking\_Refund\_for\_Vehicle\_Not\_Released\_\_c  Towing\_Business\_Name\_\_c  Location\_Vehicle\_Towed\_From\_\_c  Towing\_Fees\_Complaint\_\_c  Towing\_Company\_Hours\_of\_Operation\_\_c  Zoning\_Permit\_text\_\_c  Zoning\_License\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| Zoning Residentia | Property\_Type\_multi\_\_c  Owner\_Occupied\_\_c  L\_I\_District\_\_c  L\_I\_Address\_\_c |
| Vacant Lot Clean-Up | Is\_this\_a\_tree\_issue\_\_c  Are\_there\_any\_other\_issues\_with\_the\_lot\_\_c  Lot\_Type\_\_c  Type\_of\_violation\_\_c |

###### Exceptions and Logging

Errors processing this message will write to the Integration Server Error Log and will cause system administrators to be notified by email. Errors will cause the source message not to be acknowledged back to Salesforce and the message will remain in the Salesforce Outbound Message Queue where it can be resent once all issues have been resolved.

## Development

### Coding Standards

All services will be developed and deployed in a package named ‘Philly311’.

### Developers

Developers will work, via RDP, in city provided servers which will be loaded with the Software AG Integration Server and the Software AG Designer tool.

### Version Control

Integration server packages will be committed to the Unisys Team Foundation Server repository, ISDEV and ISTEST at development milestones and system releases.

# Appendix

## Appendix A – Problem Code Mapping

Hansen Problem Code are used to create a new record in CUSTPROB table. Below is the list of mapping of Service request type of Philly CRM against Hansen Problem Code for reference:

|  |  |  |
| --- | --- | --- |
| **No** | **Service Request Type** | **Hansen.PROBCODE** |
| 1 | Boarding Room House | BRH |
| 2 | Building Construction | BC |
| 3 | Electrical Construction | EC |
| 4 | Plumbing Construction | PC |
| 5 | Zoning Construction | ZC |
| 6 | Building Dangerous Historical | BDH |
| 7 | Building Dangerous Occupied | BDO |
| 8 | Building Dangerous Vacant | BD |
| 9 | Emergency Façade Repair | EMERG |
| 10 | Construction Site Task Force | CSTF |
| 11 | Demolition | DEMO |
| 12 | License Contractor | LC |
| 13 | Daycare Commercial | DCC |
| 14 | Daycare Residential | DCR |
| 16 | Fire Commercial | FC |
| 17 | Fire Residential | FR |
| 18 | Infestation Residential | IR |
| 19 | License Residential | LR |
| 20 | Maintenance Commercial | MC |
| 21 | Maintenance Residential | MR |
| 22 | No Heat Residential | NH |
| 23 | Other Dangerous | OD |
| 24 | Tree Dangerous | TD |
| 25 | Vacant Commercial | VC |
| 26 | Vacant House | VH |
| 27 | Zoning Business | ZB |
| 28 | Zoning Residential | ZR |
| 29 | Zoning Construction | ZC |
| 30 | Emergency Air Conditioning | X |

## Appendix B – Hansen Problem Code mapping with Priority

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **PROBCODE** | **PROBDESC** | **PRI** |
| 1 | SBD | SPECIAL BUILDING DANGEROUS | U |
| 2 | SOD | SPECIAL OTHER DANGEROUS | I |
| 3 | STD | SPECIAL TREE DANGEROUS | I |
| 4 | SMR | SPECIAL MAINTENANCE RESIDENTIAL | NH |
| 5 | SVH | SPECIAL VACANT HOUSE | NH |
| 6 | SVLR | SPECIAL VACANT LOT RESIDENTIAL | NH |
| 7 | SHM | SPECIAL HAZARDOUS MATERIAL | NH |
| 8 | SMC | SPECIAL MAINTENANCE COMMERCIAL | NH |
| 9 | SVC | SPECIAL VACANT COMMERCIAL | NH |
| 10 | SVLC | SPECIAL VACANT LOT COMMERCIAL | NH |
| 11 | SBC | SPECIAL BUILDING CONSTRUCTION | CONS |
| 12 | SEC | SPECIAL ELECTRICAL CONSTRUCTION | CONS |
| 13 | SPC | SPECIAL PLUMBING CONSTRUCTION | CONS |
| 14 | SERV | SERVICE CALL | I |
| 15 | RDAVH | REDEVELOPMENT AUTHORITY - VACANT HOUSE CONDEMNATION | NH |
| 16 | PENN | ALL PENN ISSUES WILL BE ASSIGNED TO HCEU | NH |
| 17 | NSBR | NEIGHBORHOOD SERVICES BLIGHT REMOVAL | NH |
| 18 | IT |  |  |
| 19 | SC | SPECIAL CIRCUMSTANCE | NH |
| 20 | ODO | OTHER DANGEROUS OCCUPIED | I |
| 21 | BDH | BUILDING DANGEROUS HISTORICAL | U |
| 22 | TDO | TREE DANGEROUS OCCUPIED | I |
| 23 | ASSGN | ASSIGN DYNAMIC PORTAL | NH |
| 24 | CSVIO | CONTRACTUAL SERVICES VIOLATIONS | U |
| 25 | EMERG | EMERGENCY | U |
| 26 | NSBRD | DRAINAGE COMPLAINT | NH |
| 27 | NSBRE | EXTERIOR COMPLAINT | NH |
| 28 | NSBRL | VACANT LOT | NH |
| 29 | NSBRV | VACANT HOUSE | NH |
| 30 | DP26 | VACANT LOT COMMERCIAL | NH |
| 31 | DP27 | VACANT LOT RESIDENTIAL | NH |
| 32 | VL | VACANT LOTS (CLIP) | NH |
| 33 | NHC | HEAT COMPLAINTS IN COMMERCIAL BUILDING | H |
| 34 | BDO | BUILDING DANGEROUS OCCUPIED | U |
| 35 | DEMO | COMPLAINTS ASSOCIATED WITH DEMOS | U |
| 36 | DKC | DECK CONSTRUCTION | H |
| 37 | DP01 | BLOCKED DRAIN COMMERCIAL | NH |
| 38 | DP02 | BLOCKED DRAIN RESIDENTIAL | NH |
| 39 | DP03 | BOARDING OR ROOMING HOUSE | NH |
| 40 | DP04 | BUGS OR MICE | NH |
| 41 | DP05 | BUILDING FALLING - PLEASE DESCRIBE | NH |
| 42 | DP06 | CONSTRUCTION IN PROGRESS WITHOUT PERMIT | NH |
| 43 | DP07 | DAYCARE CENTER COMMERCIAL | NH |
| 44 | DP08 | DAYCARE RESIDENTIAL | NH |
| 45 | DP09 | ELECTRICAL WORK IN PROGRESS WITHOUT PERMIT | NH |
| 46 | DP10 | FREE STANDING RETAINING WALL FALLING | NH |
| 47 | DP11 | HIGH GRASS OR WEEDS COMMERCIAL | NH |
| 48 | DP12 | HIGH GRASS OR WEEDS RESIDENTIAL | NH |
| 49 | DP13 | ILLEGAL BUSINESS | NH |
| 50 | DP14 | INSTALLATION OF POOL WITHOUT PERMIT | NH |
| 51 | DP15 | NO RENTAL LICENSE | NH |
| 52 | DP16 | OCCUPIED RESIDENCE WITHOUT HEAT | NH |
| 53 | DP17 | PLUMBING WORK IN PROGRESS WITHOUT PERMIT | NH |
| 54 | DP18 | ROOF LEAK COMMERCIAL | NH |
| 55 | DP19 | ROOF LEAK RESIDENTIAL | NH |
| 56 | DP20 | STAGNANT POOL WATER | NH |
| 57 | DP21 | TRASH OR DEBRIS COMMERCIAL | NH |
| 58 | DP22 | TRASH OR DEBRIS RESIDENTIAL | NH |
| 59 | DP23 | TREE FALLING SPECIFY AREA OF PROPERTY | NH |
| 60 | DP24 | VACANT BUILDING COMMERCIAL | NH |
| 61 | DP25 | VACANT HOUSE RESIDENTIAL | NH |
| 62 | DP28 | WATER IN BASEMENT COMMERCIAL | NH |
| 63 | DP29 | WATER IN BASEMENT RESIDENTIAL | NH |
| 64 | ED | EMERGENCY DANGEROUS | I |
| 65 | DRGMC | DRAINAGE MAINTENANCE COMMERCIAL TO CI | H |
| 66 | DRGMR | DRAINAGE MAINTENANCE RESIDENTIAL TO HCEU | H |
| 67 | SOC | SERVICES & OPERATIONS CLOSE |  |
| 68 | SGNZP | SIGN ILLEGAL | NH |
| 69 | SGNDN | SIGN DANGEROUS | I |
| 70 | SR311 | SERVICE REQUEST FROM 3-1-1 | NH |
| 71 | BC | BUILDING CONSTRUCTION | CONS |
| 72 | DCC | DAY CARE COMMERCIAL | NH |
| 73 | BMC | BUILDING MAINTENANCE COMMERCIAL | NH |
| 74 | BRH | BOARDING OR ROOMING HOUSE | NH |
| 75 | DCR | DAY CARE RESIDENTIAL | NH |
| 76 | EC | ELECTRICAL CONSTRUCTION | CONS |
| 77 | EMC | ELECTRICAL MAINTENANCE COMMERCIAL | NH |
| 78 | EMR | ELECTRICAL MAINTENANCE RESIDENTIAL | NH |
| 79 | FR | FIRE RESIDENTIAL | NH |
| 80 | L | LICENSE | NH |
| 81 | NE | NO ELECTRIC | NH |
| 82 | NG | NO GAS | NH |
| 83 | NH | NO HEAT | H |
| 84 | NU | NO UTILITIES | H |
| 85 | NW | NO WATER | NH |
| 86 | PMC | PLUMBING MAINTENANCE COMMERCIAL | NH |
| 87 | OC | OVERCROWDED – COMMERCIAL | H |
| 88 | OR | OVERCROWDED – RESIDENTIAL | NH |
| 89 | PC | PLUMBING CONSTRUCTION | CONS |
| 90 | PMR | PLUMBING MAINTENANCE RESIDENTIAL | NH |
| 91 | RM | RESIDENTIAL MAINTENANCE | NH |
| 92 | TD | TREE DANGEROUS | U |
| 93 | VC | VACANT COMMERCIAL | NH |
| 94 | VH | VACANT HOUSE | NH |
| 95 | VLC | VACANT LOT COMMERCIAL | NH |
| 96 | VLR | VACANT LOT RESIDENTIAL | NH |
| 97 | WM | WEIGHTS & MEASURES | NH |
| 98 | X | OTHER | NH |
| 99 | Z | ZONING | NH |
| 100 | HM | HAZARDOUS MATERIAL | H |
| 101 | ZR | ZONING RESIDENTIAL | NH |
| 102 | ZB | ZONING BUSINESS | NH |
| 103 | MC | MAINTENANCE COMMERCIAL | NH |
| 104 | MR | MAINTENANCE RESIDENTIAL | NH |
| 105 | LB | LICENSE BUSINESS | NH |
| 106 | ZC | ZONING CONSTRUCTION | CONS |
| 107 | IR | INFESTATION RESIDENTIAL | H |
| 108 | OD | OTHER DANGEROUS | U |
| 109 | BDS | BUILDING DANGEROUS SINKING | I |
| 110 | ZM | ZONING MISCELLANEOUS | NH |
| 111 | MRE | MAINTENANCE RESIDENT ELECTRIC | NH |
| 112 | NTA |  | NH |
| 113 | MRP | MRP-MAINTENANCE RESIDENTIAL PLUMBING | H |
| 114 | NTF | NUISANCE TASK FORCE | H |
| 115 | WMC | WEIGHTS & MEASURES COMPLAINTS | NH |
| 116 | WFO | WEIGHTS & MEASURES FUEL OIL | NH |
| 117 | WGS | WEIGHTS & MEASURES GAS STATIONS | H |
| 118 | WMP | WEIGHTS & MEASURES PARKING | NH |
| 119 | WSN | WEIGHTS & MEASURES SCANNERS | NH |
| 120 | WSL | WEIGHTS & MEASURES SCALES | NH |
| 121 | FC | FIRE COMMERCIAL | NH |
| 122 | BMR | BUILDING MAINTENANCE RESIDENTIAL | NH |
| 123 | BD | BUILDING DANGEROUS | U |
| 124 | NH1 | NO HEAT | H |
| 125 | NH2 | NO HEAT | H |
| 126 | LR | LICENSE RESIDENTIAL | NH |
| 127 | DC | DAY CARE | NH |
| 128 | CP | COMMUNITY LIFE IMPROVEMENT PROGRAM | NH |
| 129 | LEAD | LEAD ABATEMENT HEALTH DEPT | H |
| 130 | REF | REFERRAL | NH |
| 131 | LC | LICENSE CONSTRUCTION | CONS |
| 132 | SY | SCRAP YARD | H |
| 133 | BLK | BLOCKED |  |
| 134 | PRJ | PROJECT |  |
| 135 | SIGN | SIGNAGE |  |
| 136 | CSTF | CONSTRUCTION SITE TASK FORCE | NH |

## Appendix C – Caller Type Mapping

Not Applicable

## Appendix D – Status & Comments Mapping

|  |  |
| --- | --- |
| **Hansen Field Name** | **Salesforce Field(API Name)** |
| IMSV7.CUSTPROB.NOVOSTATUS | Status |
| IMSV7.CUSTPROB.SRCOMMENTS | Case Comments |

## Appendix E – Custom Settings in Hansen

Not Applicable

## Appendix F - webMethods Service Details

Not Applicable

## Appendix G – Change Orders

Not Applicable