

## Change Log

Version	Date	Change	Done by
1.0		Baseline	Hitesh, Karan,V Sridhar
1.1	17/7/14	<ul style="list-style-type: none"> <li>Case 4 in Flow Identification Logic. (Inventory for property to be considered)</li> <li>Sorting criteria changed from alphabetical to Random ordering</li> <li>Version 2 updated - Similarity flags may be required for each project/ property, each locality in future</li> <li>Case added in broadcast logic - What if all brokers deny the lead before the bidding cycle ends</li> <li>RM Dashboard - Ability to decide primary vs resale flow added</li> <li>Updated flow identification logic to handle hybrid cases where in a single lead one locality/project is of primary and other belongs to secondary</li> <li>Added handling of Holidays on phase 2</li> <li>Added handling of NRI leads flow identification logic</li> </ul>	Hitesh
1.2	18/7/14	<ul style="list-style-type: none"> <li>Clarified that in case of composite leads, if projects or Properties are mentioned, the list of localities in the lead will include the localities of the projects/properties</li> </ul>	
1.3	21/7/14	<ul style="list-style-type: none"> <li>Removed the Similar Properties with user requirement logic - it was redundant and no needed</li> <li>Updated similar properties, similar projects and similar localities logic &amp; Selection logic to incorporate meta data</li> <li>Updated the table in CRM related front end items</li> </ul>	
1.4	23/7/14	<ul style="list-style-type: none"> <li>Very minor changes to Communications Table</li> <li>Updated No Broker Found Criteria</li> </ul>	

## Flow Identification Logic (Primary vs Resale)

### Case 1: Lead has only city level information

1. The lead should go to quality team and quality team should then qualify it. If quality team is not present in the city then move to next step.
2. If there is no quality team present in that city, then leads would go to primary flow

**Case 2:** Lead only has Locality or Suburb Level information

1. The lead should go to quality team and quality team should then qualify it. If quality team is not present for that city or locality then move to next step
2. Check the locality flag if it's in resale or not. If the flag is resale then move to next step, or otherwise move lead to primary flow. **Introduce such a flag**
3. Check for any CMS rules. Check if there are any PT sellers present in CMS for the locality. If yes the assign lead to internal PT Resale team. Else move the lead to external brokers resale flow

**Case 3:** Lead has only project level information

1. The lead should go to quality team and quality team should then qualify it. If quality team is not present for that city or locality then move to next step
2. Check the locality flag if it's in resale or not. If the flag is resale then move the lead to resale flow (step 5) else move to next step
3. Check if the availability status of the project.
  - In the primary inventory of the project is not available then move the lead to resale flow - Step 5
  - If the primary inventory of the project is available then move to next step
4. Check the project flag if it's in resale or not. If the flag is resale then move to next step, otherwise move the lead to primary flow
5. Check for any CMS rules. Check if there are any PT sellers present in CMS for the locality. If yes the assign lead to internal PT Resale team. Else move the lead to external brokers resale flow

**Case 4:** Lead has property level information

1. Use logic present in project. Use inventory of Property in this case

**Case 5:** Lead is from outside India - NRI Lead

1. Check if the lead should go to primary. If yes move lead to primary
2. If no, then check if the lead should go to PT Internal Resale. If yes move the lead to PT internal resale team
3. If no, then DO NOT move the lead to external brokers. Move the lead to primary in this case.

**Note: If customer has indicated preference of X localities, Y projects or Z properties (by first call team or multiple leads), then**

- First check if there if any of the Z properties should go into primary or not. If yes then send the lead to primary.
- Next check if there if any of the Z properties should go into PT internal sales team or not. If yes then send the lead to PT internal team
- Repeat the above 2 steps for Y projects
- Repeat the above 2 steps for X localities.

- Still if the lead does not belong to primary or secondary then move the lead to external resale flow

## Selection Logic

This section specifies the logic that should be used to select the brokers to whom the required lead is to be broadcasted.

### Matching Criteria

The following matches should be used with the priority order in which they are listed. These criteria will only kick in if

- Customer has given a property level lead with meta data
  - Customer has given a property level lead without meta data
  - Customer has given a project level lead with meta data
- Primary Match:** The project, BHK and area matched with Broker's inventory (use both Customer meta data and property level info if available).
  - Secondary Match:** The project, BHK matched with Broker's inventory. The area did not match or area is not available in the lead (use both customer meta data and property level info if available)
  - Tertiary Match:** The project matched but BHK and area did not match (use both meta data and property level info if available).
    - Relax the area and prefer brokers where BHK +-1. If the result set is not sufficient then relax the BHK filter also

### Heuristics Criteria

Heuristics logic will kick in in 2 cases

- The above 3 cases does not produce required number of results
- Customer has given a project level lead without meta data

The following matches should be used with the priority order in which they are listed

- Interest Heuristic (phase II):** Use web history of customer and find brokers who have inventory in projects of interest. Interest can be gauged based on following
  - Favorites - Projects marked as favorites
  - Comparisons
    - Only consider projects that are present in comparison bucket as of that moment
    - Reject a project if addition to comparison was done more than 30 days ago
  - Time spent on project, # Page Views (TBD Later)
- Similar Properties/Projects Heuristic:**

Use Similar properties heuristics if matching algo was triggered but enough results were not found. Of all the inventories submitted by broker, find their similarity score with the lead and then sort brokers in ascending order of their Average scores.

Use Similar projects heuristics if matching algo was NOT triggered and customer has left a project level lead with no meta data. Of all the unique projects submitted by broker, find their similarity score with the lead and then sort brokers in ascending order of their Average scores.

**C. Failsafe Heuristic (Cold Start Problem - only locality name is given):**

Heuristics logic will kick in in 2 cases

- locality level lead with meta data
- locality level lead without meta data

Check the locality name of the lead. Broadcast the leads to brokers who have listed that particular locality in the profile

- a. If customer has indicated his meta data and multiple brokers are found to have inventory in the locality, then Brokers with more number of properties that are similar (as per similar property logic) the user requirements in that locality should be preferred higher (Appendix A logic)
- b. If multiple brokers are found and customer has not given any meta data (or there is no inventory match as per customer requirements), then Brokers with more inventory in given locality likely to have better network and higher probability of supply presence. Thus sort them in descending order of supply and then select out of them
- c. We will not use the similar localities logic here in order to make sure the system in not too loose

In phase III compute the freshness of the inventory to break a tie

**Note: If customer has indicated preference of X localities, Y projects or Z properties (by first call team or multiple leads), then consider that as (X+Y) leads - cumulated into single lead.**

**Priority order of the Brokers will be based on following**

- First Consider the Z properties - start by first property and then sort the brokers. Next consider the next property and sort the brokers and so on. Use the tie breaker logic to come up with the final list of brokers.
- If the required set of brokers found is not enough to start bidding cycle then first consider the Y projects - start by first project and then sort the brokers. Next consider the next project and sort the brokers and so on. Use the tie breaker logic to come up with the final list of brokers

- If the required set of brokers found is not enough to start bidding cycle then next consider the first locality of X localities and sort the brokers. Next consider the next locality and sort the brokers and so on. Use the tie breaker logic to come up with the final list of brokers.
- In the list of X localities DO NOT consider the localities of Y projects or Z properties

## Filtering Criteria

<next phase>

### Sorting Criteria (in case of tie)

- If there is a tie amongst the brokers then sort the remaining brokers based on
  - sum of no. of primary matches for all the properties user has entered
  - sum of no. of secondary matches for all the properties user has entered
  - sum of no. of tertiary matches for all the properties user has entered
  - ~~No. of Interest Heuristic Matches~~
  - Sum of average similar properties/projects score for all properties/projects user has entered. Lower scores wins
  - Sum of no of inventory that match user criteria for all localities user has entered (if user has entered some meta data).
  - Sum of no of inventory for all localities user has entered (if user has not entered some meta data).
- If there is tie amongst the brokers then sort the remaining brokers based on broker rating
- Prefer brokers with higher no. of open leads (new to negotiation stage) per agent
- If still there is a tie, then use random ordering of broker name

### No Broker found Criteria (phase II)

Still, if we do not find any single broker, then

- Check if First Call team has marked the lead as “Resale” or “Both”.
  - If “Resale” then close the lead and store reason for closure “No Broker Found”
  - If “Both” move the lead to primary flow and store the reason for closure “No Broker found”
  - Send the notification in this case to relevant stakeholders. See communication module for more details

## Broadcast Logic

1. Broadcast the lead to X brokers and wait for Y minutes. If Z brokers claim the lead before Y minutes then stop and send communication to customer
2. If <Z brokers claimed the lead then send the lead to next set of X brokers and again wait for Y minutes.
  - a. During this bidding cycle 2 you may receive some waitlists
3. Repeat step 2 till number of brokers who claim the lead become Z

- a. Before start for bidding cycle N ( $3 \leq N \leq A+1$ ), check if there are any waitlisted brokers from Bidding Cycle N-2, N-3, N-4... 1. Auto Claim the lead for these set of brokers depending on the no. of slots left.
    - i. To prioritize the brokers use the same logic. The priority order of these waitlisted brokers may not be same now, because during the waitlist they update their inventory
  - b. Also repeat this waitlist process after Ath bidding cycle
4. This bidding process will continue till A times
5. If  $< Z$  brokers have claimed the lead all other brokers have denied the lead, then don't wait Y minutes for the completion of next bidding cycle. Immediately terminate this cycle and move to next bidding cycle
6. What if no one accepts the lead or less people accept the lead?
  - a. If no. of brokers who have accepted leads after A cycles is  $> 0$  but  $< Z$  then stop. Share the set of brokers with customers
  - b. If no of brokers who have accepted leads after A cycles = 0 then stop and send communication to channel managers of brokers to whom leads were passed. Wait for M hours to allow some brokers to waitlist the lead. In this case the lead will be AUTO-CLAIM as soon as the broker waitlists it
    - i. Send the communication to customer after M hours or when Z brokers have claimed the lead, whichever is earlier
    - ii. If none of the brokers have waitlisted the property for M hours then check if First Call team has marked the lead as "Resale" or "Both".
      - If "Resale" then close the lead and store reason for closure "No Broker Found"
      - If "Both" move the lead to primary flow and store the reason for closure "No Broker found"

If at least one broker has waitlisted the property then we cannot move the lead to primary and one has to wait for M hours.

The timer for Y minutes should only run from 9 am to 8 pm

$X = 5$ ,  $Y = 60$  minutes,  $Z = 3$ ,  $A = 15$ ,  $M = 8$

## Broker Non Performance Logic

1. New Leads: There is a max limit of leads which Broker can leave in "New State". If broker has X leads in new state then do not give any new leads to the broker. Send communication to Broker and Relationship Manager (using dashboard)

For Relationship Mgr Comm note

- Send the dashboard communication 24 hours after you send the Broker communication ( if the status does not get change)

- The dashboard message will be shown to respective relationship manager

**X = 5**

2. Logged in: There is a max time X days under which a broker must log in if he or she has any new or in progress leads.

Send communication to relationship manager

**X = 2**

3. Incident Status not updated: There is a max time of X days under which a broker must change the status of lead. Note that when the lead is closed then this notification will not be triggered. Send communication to relationship manager in this case

X days is to be based on the current status of the lead

**New: X = 10**

**In Progress X= 10**

**Site Visit X = 10**

**Negotiation=10**

## Customer Interested in more Brokers (phase II)

- If customer's lead already has some brokers assigned, and the lead status is dead in all of them
  - Check if any brokers are present in Waitlist queue. If yes then auto assign the leads to them and trigger communication to customer
  - If no brokers are present in waitlist queue start the selection and broadcast process for the set of brokers who did not receive the lead in round 1
  - If no brokers are found, then the corresponding logic will kick in
  - Notification should go to respective teams and provision should be there in RM and CS team to see the history
- If customer's lead already has some brokers assigned, and the lead status is not dead in all of them
  - Same as above

## Duplication Logic

**Case 1:** Customer has dropped 2 leads. One lead goes in primary flow and other goes in secondary flow.

**Case 1.1:** Primary lead first and then resale lead

**Case 1.1.1:** Primary lead is assigned to PT primary agent and then resale lead for external broker was dropped

**Action:** Pass the resale lead to current PT primary agent only

**Case 1.1.2:** Primary lead is assigned to PT primary agent and then resale lead for PT team is dropped

**Action:** Pass the resale lead to current PT primary agent only

**Case 1.1.3:** Primary lead is not assigned to PT primary agent when resale lead for external broker is dropped

**Action:** Use FIFO with Case 1.1.1

**Case 1.1.4:** Primary leads is not assigned to PT primary agent when resale lead for PT team is dropped

**Action:** Use FIFO with Case 1.1.2

**Case 1.2:** Resale lead first and then primary lead

**Case 1.2.1:** Resale lead is assigned to PT agent when primary lead was dropped

**Action:** Pass the primary lead to current PT resale agent only

**Case 1.2.2:** Resale lead is claimed by some external brokers when primary lead was dropped

**Action:** Pass the primary lead to set of brokers depending on how many of them have claimed the lead.

If no. of claimants has reached max in the cycle then send the primary lead to them and waitlisted brokers.

- If one of the claimants has marked the lead as dead, then do not give that lead to it

If the no. of claimants is short of desired value, then 2 cases

- Bidding Cycle still going on
  - Time Remaining in Bidding cycle is >50% of bidding cycle time. In this case give the primary lead to the claimants and set of brokers for which the current bidding cycle is running (who have received the lead)
  - Time Remaining in Bidding cycle is <30% of bidding cycle time. In this case give the primary lead to claimants only. When the next bidding cycle 2 runs, we select the next set of brokers - in this set also consider the people who received a lead in bidding cycle 1 but did not claim it (which do not happen in case of non - duplicate leads). Because now the requirements of the customer has been updated. For older set of brokers, trigger the duplicate lead notification, but for newer set of brokers, send new lead notification
- If the bidding cycle has stopped and still no. of brokers is not sufficient
  - Give the duplicate lead to no. of claimants only.
  - In phase 2 we may ask more more set of brokers as per new requirement

**Case 1.2.3:** Resale lead is not assigned to PT agent when primary lead is dropped

**Action:** Use FIFO with Case 1.2.1

**Case 1.2.4:** Resale lead is not been claimed by external broker when primary lead is dropped

**Action:** See Case 1.2.2



**Case 1.2.5:** Resale lead is not been broadcasted (is with First Call Team) to external broker when primary lead is dropped

**Action:** Use FIFO and then Case 1.2.4

**Case 2:** Customer has dropped 2 leads. Both the leads go in resale flow

**Case 2.1:** First lead is not claimed by any broker when 2nd lead is dropped

**Action:** See Case 1.2.2

**Case 2.2:** First lead is not been broadcasted to any broker when 2nd lead is dropped

**Action:** See Case 1.2.5

**Case 2.3:** First lead is claimed by some brokers when 2nd lead is dropped

**Action:** See Case 1.2.2

**Case 2.4:** First lead is not assigned to PT resale agent when 2nd lead is dropped

**Action:** Use FIFO with Case 2.5

**Case 2.5:** First lead is assigned to PT resale agent when 2nd lead is dropped

**Action:** Pass the lead to PT resale agent

**Case 3:** Customer has dropped 2 leads. Both go in primary flow

Use current logic as of now

Note: In all of the duplication logic, if 2nd lead is forwarded to a person (PT Primary, PT secondary, External broker) it will get attached to original lead. There will be no separate lead in the system.

## Broker CMS Specifications

Present at <https://drive.google.com/a/proptiger.com/#folders/0B8x7v8-QirhpaW1feHNfdDhyVTA>

### User Validations

Level	Access Details
Administrator	All access + Creation of Users+Reset Password
Manager	All access

Workforce	Cannot - create rules, Delete Listings, Deactivate Brokers, Deactivate Sellers
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## Communication Logic

See Appendix for list of communications. Some communications are pretty simple. The one's that require logic are

### Trigger Points

#### 1. Primary lead is submitted

##### **Sharing the agent information with customer**

- For city level leads do not send 2nd mailer
- If the profile of agent does not exist then also do not shoot 2nd mailer
- For locality, project, property level leads, as soon as an agent is assigned, send an emailer with the agent info. The email will give snapshot of agent along with a link to complete profile on the web
  - Note that the phone number of the agent is to remain hidden in case of internal primary PT Agent

#### 2. Resale lead is submitted

##### **Sharing the broker/internal agent info with the customer**

- If lead is assigned to Internal resale PT Agent then shoot a secondary email after an agent is assigned. If no agent is assigned or the profile does not exist in CMS then do not send any 2nd emailer.
  - Note that the phone number of the agent is to remain hidden in case of internal resale PT agent
- If lead is assigned to external brokers then shoot secondary email after brokers assigned. If profile does not exist, then do not include that profile in the emailer. Have separate email designs for 1, 2 and 3 brokers

#### 3. Lead Accepted by Brokers

##### **Customer Comm**

- No communication will be sent if the complete set of brokers are not yet selected. After repeated bidding cycle, once we have the required no. of brokers who have claimed the lead we send a communication
  - If after pre-defined no. of attempts the no. of brokers who have claimed the lead is less than required no. of brokers, still trigger the email.

#### 4. Duplication

- a. No separate communication will go in this case except the first thank you email and SMS

### Special Cases

Communication will go to RM

- Leads in Broker CRM that are marked Dead with reason “Client wants Fresh property”
  - Check if any other broker/ agent in the system has that lead. Don’t take any action till all the people who have lead have marked the lead as dead. If all the agents have marked it as dead then move the lead to primary flow
- Leads in Internal CRM that are marked as Dead with reason as “Interested in Resale”
  - Same as above
- Option to ask for more brokers will not come for
  - If lead currently with PT internal resale and PT internal primary team

### CRM Front End Related Items

Info present in Lead	User Opted for Similarity?	What to show broker? (Matching Properties)	What broker can add in case of 0 matching?
Property Info (with or without meta data)  OR  Project info with meta data	Yes.	<b>Show</b> all 1’, 2’ matches first <b>+Show</b> 3’ matches that are similar <b>+Show</b> similar properties from other projects (priority order will be based on similarity score)	<b>Localities:</b> All localities user operates in. However if the selected locality does not belong to any property in list of similar properties or the locality of original lead then give error <b>Projects:</b> All projects in selected locality. However if the selected project does not belong to any property in list of similar properties or the original lead itself then give error <b>Property:</b> Allow all 1’, 2’ matches. Allow 3’ matches that are similar. Allow similar properties from other projects. Again if the property is not similar then give error
	No	<b>Show</b> all 1’, 2’ matches first	<b>Localities:</b> Only show locality of the lead

		<b>Show</b> 3' matches that are similar (priority order will be based on similarity score)	<b>Project:</b> Only show project of the lead <b>Property:</b> Allow all 1', 2' matches. Allow 3' matches that are similar (priority order will be based on similarity score). If user selects something else then give error
Project Info (no meta data)	Yes	<b>Show</b> all properties of project <b>+Show</b> all properties of projects that are similar to original project (priority order will be based on similarity score)	<b>Localities:</b> All localities user operates in. However if the selected locality does not belong to any project in list of similar projects or the locality of original lead then give error <b>Project:</b> All projects in selected locality. However if the selected project does not belong to any project in list of similar projects or the original lead itself then give error <b>Property:</b> Allow all properties of selected project
	No	<b>Show</b> all properties of original project	<b>Localities:</b> Only show locality of the lead <b>Project:</b> Only show project of the lead <b>Property:</b> Allow all properties of selected project
Locality Info	Yes	<b>Show</b> all properties of all projects in locality <b>+Show</b> all properties of all projects of all localities that are similar to original locality (priority order will be based on similarity score)	<b>Localities:</b> All localities user operates in. However if the selected locality does not belong to any locality in list of similar localities or the locality of original lead then give error <b>Project:</b> All projects of selected locality. <b>Property:</b> All properties of selected project
	No	Show all properties of all projects in locality	<b>Localities:</b> Only show locality of the lead <b>Project:</b> All projects of selected locality

			<b>Property:</b> All properties of selected project
Locality Info + Meta Data	Yes	<b>Show</b> similar properties of all projects in locality <b>+Show</b> similar properties of all projects of all localities that are similar to original locality (priority order will be based on similarity score)	<b>Localities:</b> All localities user operates in. However if the selected locality does not belong to any locality in list of similar localities or the locality of original lead then give error <b>Project:</b> All projects of selected locality. However if the selected project does not belong to any project in list of similar properties or the original lead itself then give error <b>Property:</b> All properties of selected project that are similar
	No	Show similar properties of all projects in locality which match user preference	<b>Localities:</b> Only show locality of the lead <b>Project:</b> All projects of selected locality <b>Property:</b> All properties of selected project that are similar

**Note: If customer has indicated preference of X localities, (Y projects or Y properties) (by first call team or multiple leads), then consider that as (X+Y) leads - cumulated into single lead.**

- For Similar matches the properties user will see will be based on
  - Union of all properties that user will see individually for each of the X localities and Y projects/ properties
- For the properties user can add in case of 0 matching properties will be based on
  - Again union of all properties that user can add for each of the X localities and Y projects/properties.
- In the list of X localities DO NOT consider the localities of Y properties/projects

## First-Call Team Dashboard

- Ability to add budget requirements, size requirements, bhk requirements (meta data)
  - Ability to store custom requirements by customer (free flow text) like direction, tower, floor, furnishings etc
- Can add multiple project or property requirements. One cannot add both
- Can add multiple locality requirements
- Should have a checkbox for “ Customer interested in similar (properties/projects)?”

- Should have checkbox for “Customer interested in similar localities?” (will only come if no project or property is indicated by customer. In that case it would be disabled)
- Ability to send lead to primary or secondary flow

## Things to be covered in phase II

- Website + Mobile UI Changes
- Lead Scoring Algorithm
- Ops + Payment Process
- Task list for Relationship Mgr (Reminders in Task and Task Flow) . Eg Call this broker
- Verification of listing and photos uploaded by Broker
- In future similarity flags may be required for each project/ property, each locality (not each lead)
- Holidays for Brokers (public and weekly)
- ordering of brokers if inventory updated at time (check with tech)

## Appendix A

PP = Push Notifications (shown when app is closed) - that are persistent and will be shown in Alerts screen till some action is taken. These will by default also shown in Alerts when app is open

PI = Push Notifications (shown when app is closed) - that are not persistent but informative. They will be in the alerts screen but user can delete them. These will by default also shown in Alerts when app is open

AP = Alert Notification only in alert screen - that are persistent and will be shown in Alerts screen till some action is taken . If the app is closed then this will not be visible

AI = Alert Notification only in alert screen -that are not persistent but informative. They will be in the alerts screen but user can delete them. If the app is closed then this will not be visible

S=SMS

E=Email

Trigger	Target	Platforms	Text	Target Page
<b>Lead Submission</b>				
Resale Lead Submitted	Customer	S,E	As of current	NA
<b>Lead Broadcast</b>				
Resale External Broker selected for broadcast	Broker	E,PI (Task Reminder)	Covered in Task Reminder for Broker	Claim List Screen

			<b>Single lead:</b> Lead for <BHK> <project>, <locality> is waiting to be claimed  <b>Multiple leads:</b> 2 leads are waiting to be claimed  Note: “for BHK” will not come in case of plots	
No Broker Claimed	RM	E, AI	Lead No. <Lead No.> <Customer Name> for <Locality Names> is not claimed by any broker Email Design Pending	RM Dashboard
No Broker Claimed, & Lead moved to Primary	RM	E, AI	Lead No. <Lead No.> <Customer Name> for <Locality Names> is not claimed by any brokers and thus marked as LOST Email Design Pending	RM Dashboard
No Brokers found in the system	OPS	E, AI	No brokers found for Lead No. <Lead No.> <Customer Name> for <Locality Names>. Please check CMS rules Email Design Pending	Pending
<b>Lead Assigned</b>				
Primary Agent Assigned	Customer	E, P, A	Text Pending Email Design Pending	Agent Profile
Resale Internal Agent Assigned	Customer	E, P, A	Text Pending Email Design Pending	Agent Profile
Broker Claims a lead	Customer	E, PI, S	Text Pending Email Design Pending	
Broker gets assigned waitlisted lead	Broker	PI	<b>Lead Assigned</b> - Waitlisted lead, <lead no.> <customer name> for <project or locality> has been assigned to you	Lead Details
<b>Lead in Progress</b>				
Due tasks	Broker	PI	If task is of Call or Email	Single: Lead Details

			<p>Your &lt;<b>TASK</b>&gt; to &lt;customer name&gt;,&lt;lead no.&gt; is due at (&lt;due time&gt;)</p> <p>If task is of negotiations of Site visit <b>Single</b></p> <p>Your &lt;<b>TASK</b>&gt; with &lt;customer name&gt;,&lt;lead no.&gt; is due at &lt;Date&gt;&lt;Time&gt;</p> <p><b>Multiple</b> You have <b>A site visits, B negotiations</b> due. Please update your tasks</p> <p>A= no of site visits and B=no of negotiations. If either of A,B,C,D is 0 then do not include those task types</p> <p>Call: 30 minutes Email: 30 minutes Site Visit: If site visit schedule after 12 noon the send the notifications on 9 am of that day. If scheduled before 12 noon then send notification day before at 6 pm Negotiation: Same as site visit Note: In case of new leads, do not send this notification for Call Tasks</p>	Multiple: My Leads
Task Overdue	Broker	PP	<p><b>Single</b> Your &lt;<b>TASK</b>&gt; with &lt;customer name&gt;&lt;lead no.&gt; is overdue by &lt;time difference&gt;</p> <p><b>Multiple:</b> You have <b>A Emails, B Calls, C site visits, D negotiations</b> overdue. Please update your tasks</p> <p>A = no of emails, B= no of call, C= no of site visits and D=no of negotiations. If either of A,B,C,D is 0 then do not include those task types</p>	<p>Single: Lead Details</p> <p>Multiple: My Leads</p>



			Send these notifications everyday at 9 am.	
Broker enters property not falling in acceptable range	Broker	popup/alert	"<Field> does not match the customer requirement. If you proceed you cannot claim this lead. Buttons: Proceed anyway, Change <field>	NA
<b>Client wants some other Project or Initial requirements are updated by Broker</b>	RM, CS	AI	<Broker Name>, (<Broker Company>) has updated the requirements for Lead No. <Lead No.> <Customer Name>	RM Dashboard CS Dashboard
<b>Client wants new set of brokers</b>	Version 2			
All brokers have marked dead	RM, CS	AI	<Lead No.> <Customer Name> for <Locality Names> is not satisfied for brokers offered. He/she is looking for more brokers	RM Dashboard CS Dashboard
Not all brokers have marked it dead	RM	AI	<Lead No.> <Customer Name> for <Locality Names> is not satisfied for brokers offered. He/she is looking for more brokers	RM Dashboard
<b>Lead Status</b>				
Lead Status = Sales Successful	RM, OPS	AI, E	<Lead No.> <Customer Name> has been closed successfully by <Broker Name>, (<Broker Company>) <b>Email Design Pending</b>	RM Dashboard OPS Dashboard
<b>Special Cases</b>				
Duplication	Broker	AI	<Lead No.> <Customer Name> has submitted another request. The new information is updated in current lead	
<del>Broker has closed the lead with status – "customer asking for primary" – Primary to resale switch</del>	<del>RM Customer</del>	<del>RM:G Customer: E, P, A, S</del>	<del><b>RM</b> &lt;Customer Name&gt; (&lt;Mobile&gt;) has changed preference from in &lt;Primary/Secondary&gt; to &lt;Resale/Primary&gt; as updated by &lt;Broker Name&gt;, (&lt;Broker Company&gt;). Lead No. is &lt;Lead No.&gt;</del>	

			Customer: Pending	
<b>Broker Non Performance</b>				
No. of new leads is high	Broker RM	Broker: PP,S,E  RM: AI,E	<b>Broker:</b> “Your new leads have been stopped. Please update your existing leads to receive new leads” <b>RM:</b> “Seller Name (Broker Company) now has X new leads and will not receive any new leads. Email design pending	Broker: My Leads  RM: Dashboard
Broker has overdue tasks pending since long	RM	RM: AI,E	<b>RM:</b> “Agent Name (Broker Company) has not updated <b>X overdue tasks</b> in last Y days”  For each lead the timer for Y days will start from the last update date of that lead.  Send this message at everyday at 9 am  Y= 3 days Email design pending	RM: Dashboard
Broker not logged in/not opened app while some leads were offered to him	RM	RM: AI,E	<b>RM:</b> “Broker Name (Broker ID) has received <b>X leads</b> but not logged in during last Y days”  X=3 (leads received while app was closed), Y=3 Email design pending	Broker: My Leads  RM: Dashboard
Inventory expired	RM, Broker	RM: AI Broker: AI	<b>Broker:</b> “You have <No. of expired inventory> properties which is more than X days old. Please update your inventory to get most relevant leads”  <b>RM:</b> “Broker Name (Broker ID) has <No. of expired inventory> properties which is more than X days old	Broker: Property Screen RM: Dashboard

			Send this message every 2 weeks (1st and 15th of every month) at 5 pm  X = 30 days	
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### Similar Property Logic

- If customer has mentioned some meta data (Customer Meta Data) then
  - Take min and max prices of all properties and create a budget range which is X% lower than the lowest and X % higher than the highest. Remove the properties which do not fall in this range
  - Take min and max area of all properties and create an area range which is Y% lower than the lowest and Y % higher than the highest. Remove the properties which do not fall in this range
  - Remove the properties that do not match the BHK range specified by user
- If customer has not mentioned any meta data then we create our own meta data (Derived meta data)
  - If price variation is more than X % then neglect that property
  - If area variation is more than Y % then neglect that property
  - Filter out the properties where BHK does not lie between +- 1 BHK
- If distance of property is more than Z meters (not km) and locality is not the same then neglect that property
- Filter out the projects where project type does not match
- Filter out the project which are not in same category. There are 2 groups based on project status
  - Group 1: New Launch, Pre Launch, Under Construction
  - Group 2: Occupied, Ready for Possession
- Neglect could mean that we set there score as infinite or 99 etc

The properties that are now left are called similar properties.

$$\text{Similarity Score} = \alpha * |Price \% variation| + \beta * |Area \% Variation| + \gamma * |Distance/z|$$

$$\alpha = 0.4, \beta = 0.35, \gamma = 0.25, X = 20\% \text{ for no meta data and } 10\% \text{ for meta data}$$

$$Y = 20\% \text{ for no meta data and } 10\% \text{ for meta data, } Z = 2000 \text{ m}$$

### Similar Projects Logic

- If Lifestyle score variation is more than L % then neglect that project.
- If distance of project is more than Z meters (not km) and locality is different then neglect that projects

- Filter out the projects where project type does not match
- Filter out the project which are not in same category. There are 2 groups based on project status
  - Group 1: New Launch, Pre Launch, Under Construction
  - Group 2: Occupied, Ready for Possession
- Neglect could mean that we set there score as infinite or 99 etc

The projects which are now left are called similar projects

$$\text{Similarity Score} = \alpha * |\text{Lifestyle \% variation}| + \gamma * |\text{Distance}/z|$$

$$\alpha = 0.7, \gamma = 0.3, L = 20\%, Z = 2000 \text{ m}$$

### Similar Localities Logic

- If Lifestyle score variation is more than L % then neglect that locality
- If distance of property is more than Z meters (not km) then neglect that locality
- Neglect could mean that we set there score as infinite or 99 etc

The localities that are now left are called similar localities

$$\text{Similarity Score} = \alpha * |\text{Lifestyle \% variation}| + \gamma * |\text{Distance}/z|$$

$$\alpha = 0.7, \gamma = 0.3, X = 20\%, Z = 4000 \text{ m}, X = 10\%, Y = 10\%$$

For Display

- Localities - Sort the localities based on similarity score
- Projects: Take all the projects in the localities and sort them in alphabetical fashion because we don't have any other data