

WHITE PAPER

Hosted GMLC

An Approach To Improve
Location Identification
Success Ratio Of Psap/
Emergency Service Callers



HOSTED GMLC

An Approach To Improve Location Identification Success Ratio

Presently, the Pertsol iLocator sends a request to the TSP's LBS platform for the caller's location. The location coordinates availability depends on TSP's LBS platform. The caller's location can be fetched only if, the TSP has the information generated at its LBS platform. Getting LBS issues resolved at TSP end has been a major challenge in past years.

A solution to this is "PetSol's Hosted GMLC or iGMLC" which generates the location of the distressed caller by querying the TSP's network and locate the caller. GMLC in telecom stands for Gateway Mobile Location Centre. It enable operators to offer Location Based Services (LBS) to its subscribers across Operator's Radio Access Network, regardless of the type of access (GERAN, UTRAN or E-UTRAN). It is an independent server which is integrated with the TSPs network over a secured communication channel. A GMLC can query the TSP network to generate location of the distressed caller.

iGMLC or hosted GMLC would be an evolved version of present LBS solution

PertSol shall adopt a novel method for location retrieval as per the TSPs network type and architecture. iGMLC can be installed at TSPs premises or at Data centre, whichever is suitable to the TSP/ Department.

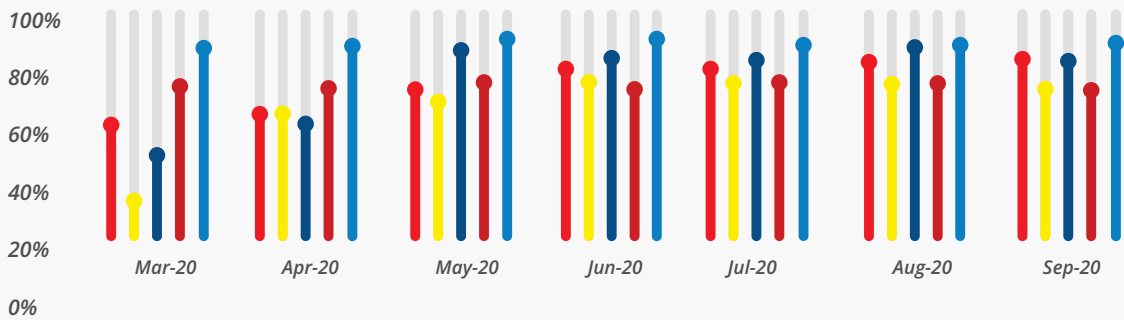
Challenge

The emergency services are suffering as TSPs' are not able to meet the LBS standards as per international guidelines in which failure rate of getting lat-longs is much lower. This non-compliance is gravely impacting the emergency services where timely response is imperative to ensure that help reaches the distressed caller in time. Moreover, the penalties for non-compliance are being imposed on the vendors who are availing TSPs services.

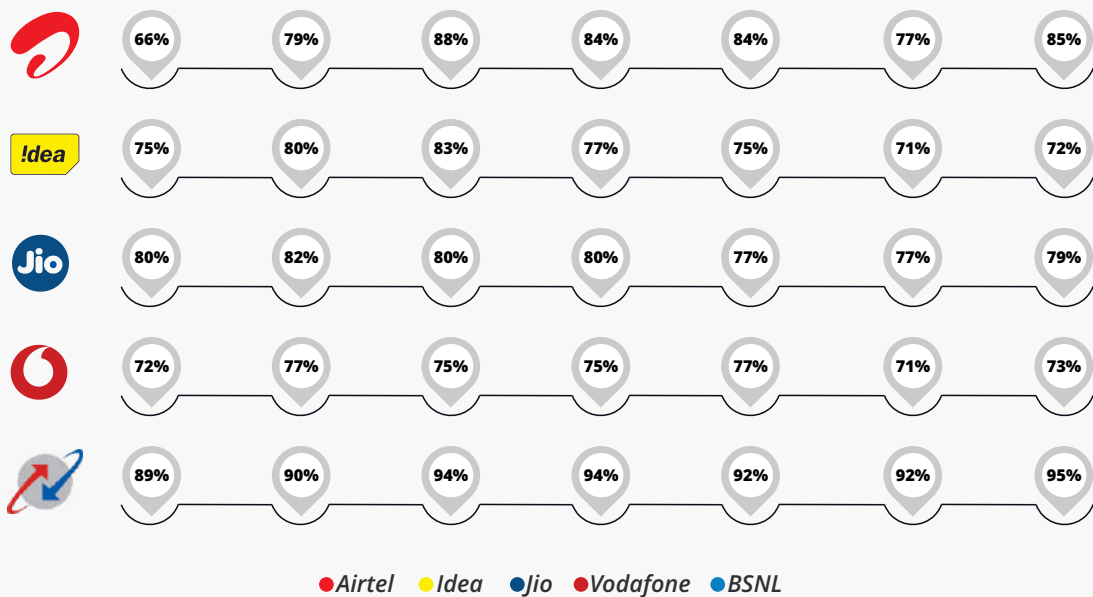
Some of the common error that PertSol observed are highlighted below:

Telecom Operators		
Request failed since service subscription is in pending state	Position method	Network Failure
TimeOut Error	Failure system failure	Subscriber switch off/not latched
MSISDN not subscribed to service		
Cell Id Error		

Indian TSP's Average Performance Graph Month Wise



Mar-20 Apr-20 May-20 Jun-20 Jul-20 Aug-20 Sep-20



● Airtel ● Idea ● Jio ● Vodafone ● BSNL

*Only For Reference



PertSol Hosted GMLC Approach

PertSol's Hosted GMLC approach will help TSPs' achieve the desired LBS results as per concern agency mandate. PertSol will deploy its iGMLC either at PSAP's premise or at TSP's premise and will identify location of the distress caller. It will ensure that TSP's fulfil the compliance by providing location intelligence as per the standards defined by the local regulators.

Some of the key highlights of the proposed iLocator (PertSol's GMLC platform are:)

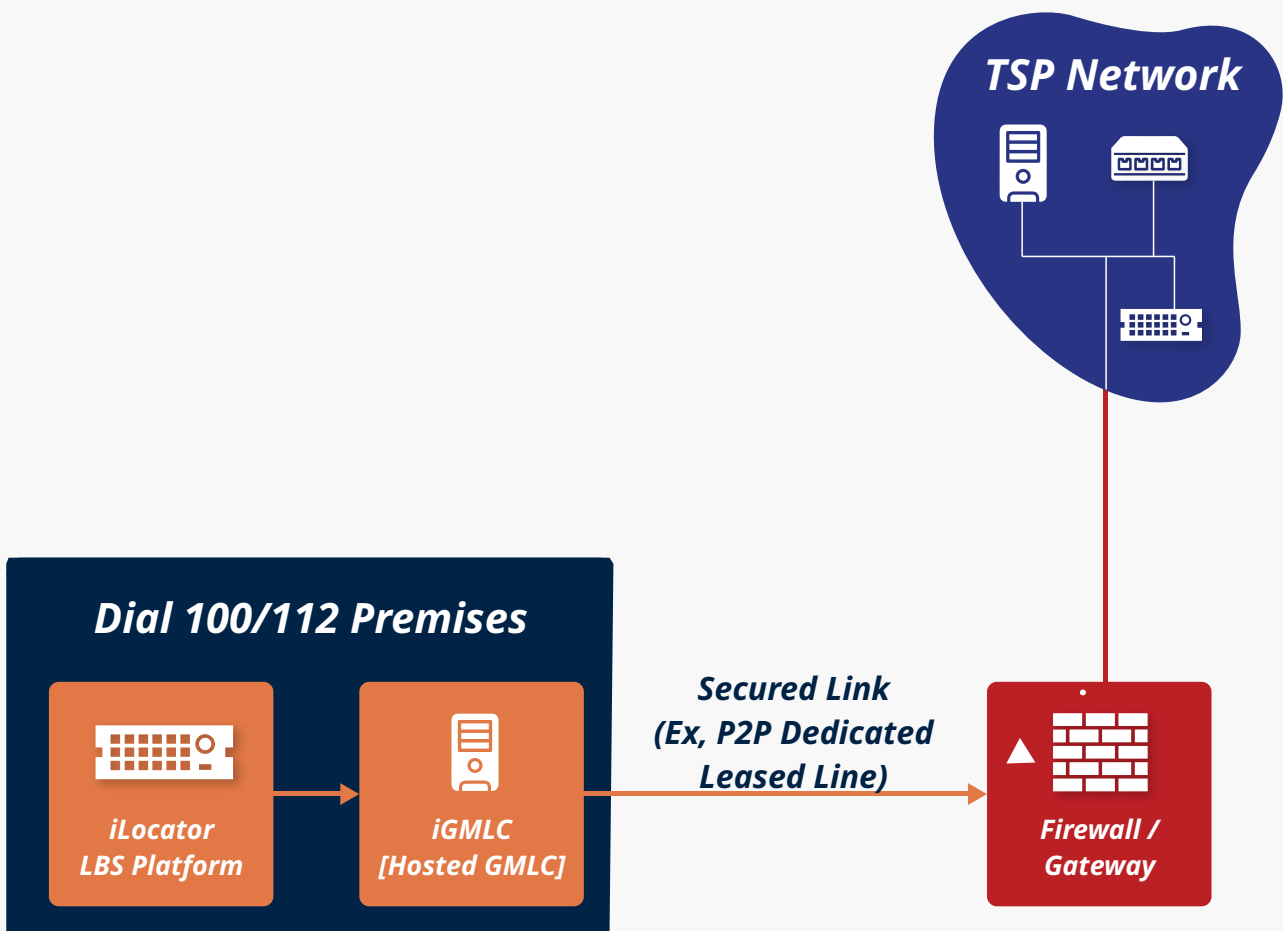
- ✓ This solution would be able to achieve a higher success rate of >95%, serving maximum distressed citizens in the state.
- ✓ There would be no dependencies on TSPs for error resolution or follow-ups to find LBS error resolutions. We shall be handling the issues by ourselves with limited dependency on the TSPs.
- ✓ With SDR (Subscriber Data Record) made available online it would be a perfect combination to build a foundation of a robust PSAP system at emergency locations.

APPROACH 1

iGMLC At Emergency Service Premise

The iGMLC deployed at PSAP premises would be connected to the TSPs network on a secured link and would pass through TSP's firewall.

The access would be limited to location fetch process only.

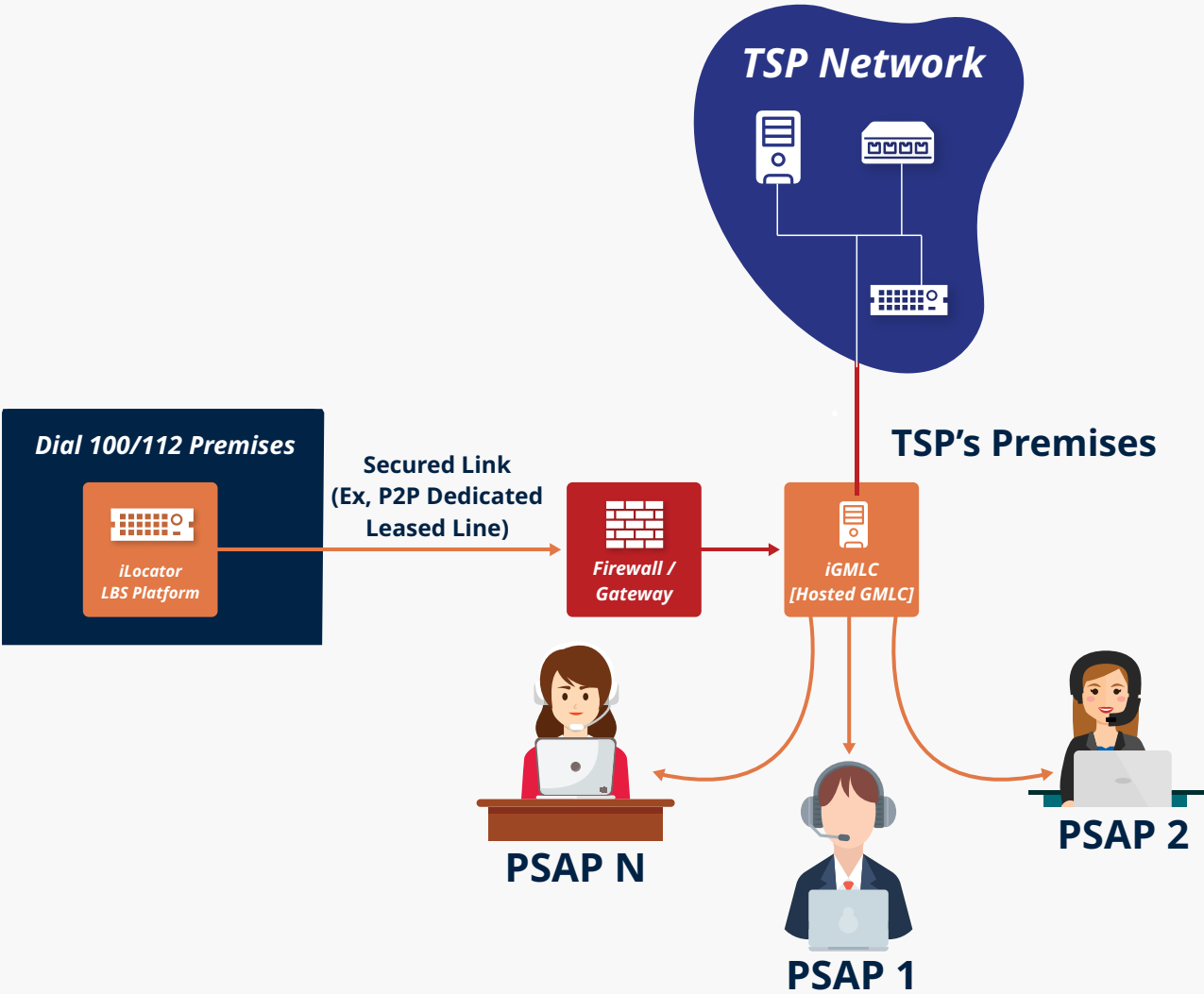


APPROACH 2

iGMLC At TSP's Premise

The iGMLC would be deployed at the TSPs premises. Connection to various PSAP can be established through the TSP firewall.

All the connection access would be limited to location fetch process only.



BENEFITS OF iGMLC

Solution With Excellent Capabilities



This solution would be able to achieve a higher success rate of >95%, serving maximum distressed citizens in the state.

There would be no compliance on TSPs for error resolution or follow-ups to find LBS error resolutions. We shall be handling the issues by ourselves with minimum dependency.



With SDR (Subscriber Data Record) made available online it would be a perfect combination to build a foundation of a robust PSAP system at emergency locations.

Location could be made possible in Intra circle roaming (ICR) scenarios as well, where TSPs share their radio network with other TSPs.



There are benefits for the TSPs in competitive telecom market; TSP can work on their services unaffected. As LBS, or location related query raised by the PSAP would be fulfilled by the GMLC.

Limited support required from the TSP in case of location or LBS related issues raised by the PSAP.



TSP would not require to upgrade their LBS software or hardware to maintain compatibility with changing technologies. iGMLC would be managing the compatibility at its end.



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