



New Generation 108 EMS APP

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108 Emergency Medical Service (EMS) was launched in August, 2007 in Gujarat and since then it has served more than one crore beneficiaries and saved lives of more than 10 Lakh Beneficiaries in critical situation.

Earlier Emergency call received on 108 Emergency Response Centre (ERC) was assigned to ambulances by doing on call communication with field team, which was time taking. To assign an ambulance to a patient in distress, the emergency response officer had to call multiple ambulances to check their status. The ambulance crew had to call back the emergency response Centre after every case for closure as details were recorded in hard copy, called Patient Care Record (PCR).



The objective behind the 108 EMS App launched in Ahmedabad District was to bring efficiency in the system for faster emergency assignment with the use of technology. The new generation 108 Application helps emergency response centre to identify appropriate ambulances based on the location of the victim/patient for

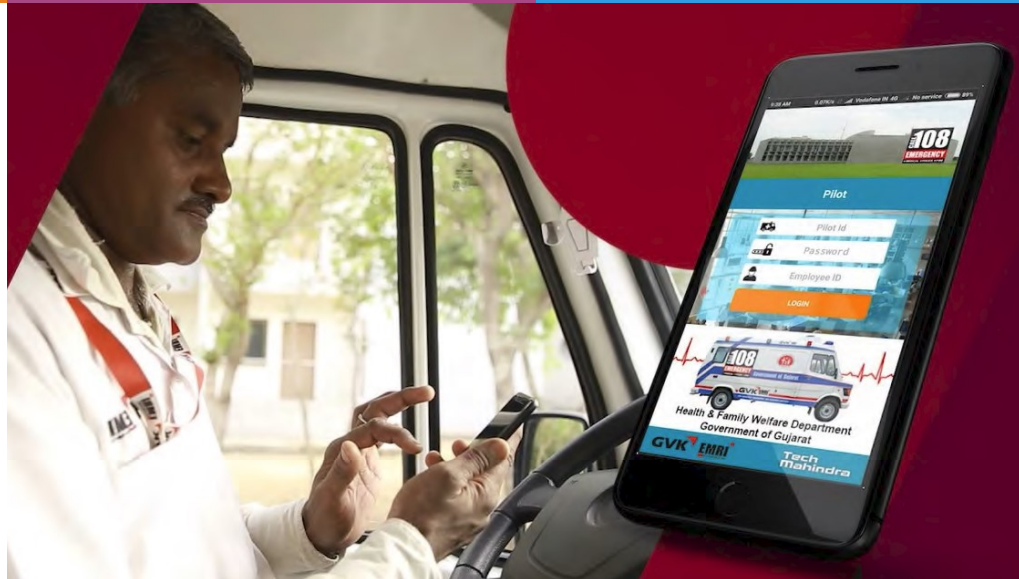
faster case assignment and real-time status of ambulances. The process of case closure by calling to emergency response centre was removed by introducing mobile application and real time case closure details updation by emergency medical team (EMT) and Pilot in the mobile application.



Ahmedabad district contributes to highest number of emergencies in Gujarat, which are increasing every year. With increase in emergencies and diversified area in the Ahmedabad city it was need of hour to bring the new innovation for catering to faster response and digital record of the cases.

The NG-108 App. is built to identify the nearby ambulances based on the latitude and longitude of the victim/patient. It automatically assign the case to the nearest free ambulance immediately. The application has several modules working in synchronized way with each other for faster case assignment and real time status of the ambulances.

ERC Module, checks real time status of the ambulances whether it is free, in the case, in the hospital or going back to base, another module is pilot module which work in sync with ERC module, hence as soon as status is updated by pilot in the pilot



App than the real time status gets updated in ERC module. EMT module includes the medical details of the patients and it is also filled realtime by EMT in the application, hence this helps for faster case assignment, removal of non-value added process of calling to ERC for case closure, sending of PCRs to head office at the end of the month and storage of PCRs.

Real-time, faster case assignment to the nearest available ambulance is the main benefit of this App. In NG 108, ERC is able to know the nearby ambulance and assign the case for faster response to emergencies. The application was developed and implemented on 3rd Feb, 2019 in phased manner.

Key Features of the Innovation

1. **Auto Assignment:** System automatic checks the nearest available ambulance and automatically assigns the case and provides expected time of arrival to the caller.
2. **Digital e-PCR Record:** Each ambulance has two crew staff i.e. Pilot and EMT and each crew has

been provided a separate mobile, Case record and trip details are recorded in the mobile application both by EMT and Pilot and hence digital information is available real time.

3. **Real Time Case Closure:** Every case is closed real-time in mobile application. In case closure is pending, alert is sent to operational excellence desk, which remind the ambulance to do so.
4. **Immediate Transfer of case to Nearest Ambulance during Breakdown:** In case ambulance breakdown during emergency the application has feature of SOS which provide alert to level-2 desk in ERC to assign case to nearest ambulance, hence easy case transfer to nearest ambulance during breakdown or any unforeseen circumstances.



5. **Pre-Arrival Intimation of Ambulance to Hospital:** Hospital module has been created wherein each hospital has been provided individual ID and Password. As soon as EMT enters details in application, assigned hospital gets the intimation of arrival of the patient with vitals and patient condition.
6. **Auto Release of Ambulance From Hospital After 10 Mins:** Once the Ambulance Crew triggers that they have reached hospital, system track the time for handover and takeover and releases the ambulance after 10 minutes for making it available to a new case.
7. **Monitoring through Operational Excellence Desk:** This desk monitors each movement of ambulance including delay in departure, change in the path or delay in reaching the scene of patient. It also handholds the field team in case of any difficulty.

The Application has helped bring the average handling time from 127 seconds to 73 seconds and further to 45 seconds. Faster case assignment, reduction of departure time of ambulance and eradication of physical records are the main benefits of the Application. A saving of Rs. 17 Lakhs (approximately) in 10 months is estimated. Overall cycle time of an ambulance improved by 8 minutes each ambulance and hence the availability of ambulances has increased.