Government of India
Ministry of Home Affairs

Nationwide Emergency Response System(NERS) Guidelines

Emergency Number ‘112’

August 2015

Contents

1. Introduction to Nationwide Emergency Response System

In India historically we have had different phone numbers to call police, fire and ambulance services namely 100, 102, 103. This system was designed at the time of a regulated telecom sector with only one telecom provider across India and one in each metro. Hence any call to these emergency numbers were routed to a call agent/ dispatcher of that particular emergency service and handled by the emergency personnel themselves. The system was not designed for emergency response initially but as an emergency contact.

Over time, in response to changing environment, the three services have tried to evolve the emergency contact into an emergency response system with mixed results. A number of cities have provided additional numbers for specific emergency situations which are not routed to a central emergency response dispatcher. This leads to confusion in the public about emergency contact number.

After the incident of 16 December 2012 in Delhi, a Committee headed by Justice J.S. Verma, former Chief Justice of the Supreme Court of India, with Justice (retired) Leila Seth, and Shri Gopal Subramanian was set up on 23 December, 2012 to give recommendations on amending laws to provide for speedy justice and enhanced punishment for criminals in sexual assault cases of extreme nature. The Committee had recommended setting up of a public emergency response system which will have the ability to dispatch an Emergency Response (ER) unit to respond and close the ER calls.

On the same, the Ministry of Home Affairs (MHA), as per the recommendation of the Justice Verma Committee, has been entrusted with the task of setting up a National Emergency Response System (NERS) comprising an integrated Computer Aided Dispatch System for Emergency Response. The project is conceived to bridge the existing gaps and meet the current challenges being faced by major Police forces in the Country for an immediate emergency response system specifically inclined towards women issues. The Department of Telecommunications has allotted the emergency number ‘112’ for this project. If need arises, there may be a non-emergency number connected to this system for counselling, feedback, complaints etc.

MHA appointed a consultant to design the Nationwide Emergency Response System (NERS) and assist in the tender process to select IT Service Provider for the same.

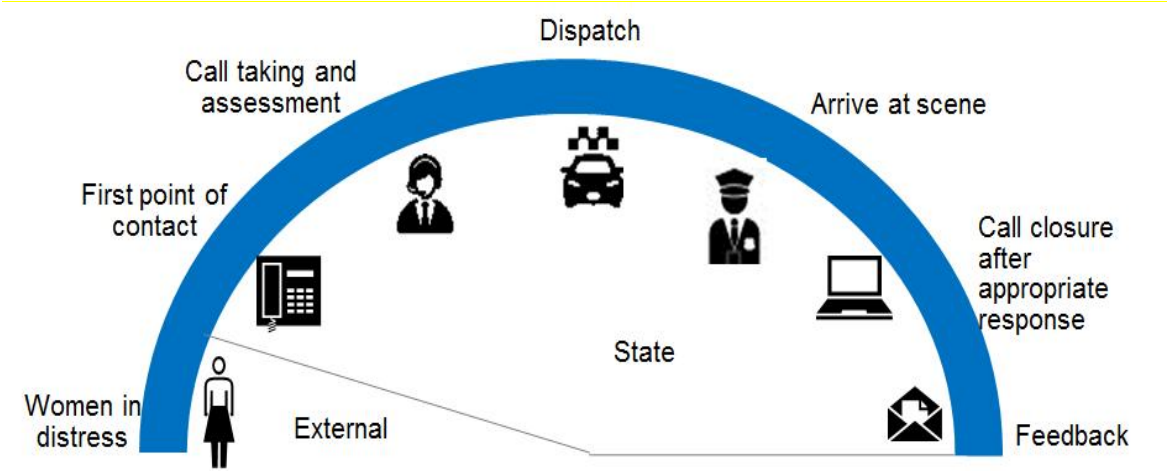
MHA has invited tender for selection of IT Service Provider (ITSP) to design, configure, customize, implement and maintain envisaged Nationwide Emergency Response System to be implemented across India. For implementation of Computer Aided Dispatch (CAD) system, MHA would be using software developed by CDAC, an R & D institution under the Ministry of Information Technology, Government of India.

These guidelines would provide clarity to the State Governments/UT Administrations on the implementation aspect of the entire project. It also details out the roles and responsibilities to be taken by the Centre and the State/UT for successful implementation of the project. It is expected that the State/UTwould send proposal to the MHA for implementation of NERS in their respective State/UT.

2. Process flows

A centralized system leveraging input from various sources such as voice call, SMS, email, mobile application etc. is envisaged by the MHA.

Overview of the process is captured in the steps below.



1. First point of contact

A state/UT Public Safety Answering Point (PSAP) is the State/UT call centre responsible for answering calls to an emergency telephone number for police, firefighting, ambulance and other services. A PSAP facility will run 24 hours a day, dispatching emergency services or passing 112 calls on to public or approved private safety agencies. Trained agents are responsible for dispatching the emergency services.

Citizen can contact the emergency number through various communication channels.

The input communication channels include:

- Fixed landline phone
- Mobile phone
- SMS
- Email
- Chat
- Panic button in public transport
- VoIP
- Mobile application
- Internet of Things (IoT)

2. Call/ data message taking and assessment

Call/ data message would be distributed through the system to the available PSAP agent and the system would display the pre-populated fields like location, name of the caller etc. from the information available in the database.

Agent will create case file in the system and based on pre-defined rules would grade the call. Information about the emergency case would be passed on to dispatcher for further action.

3. Dispatch

Dispatcher would have information about the case from agent and availability of emergency vehicles on the GIS map. Dispatcher would compile all information and dispatch the nearest emergency vehicle to the incident location. Also, information would be sent to the nearest police station. Dispatcher will have desktops with three computer screens.

4. Arrive at Scene and call closure

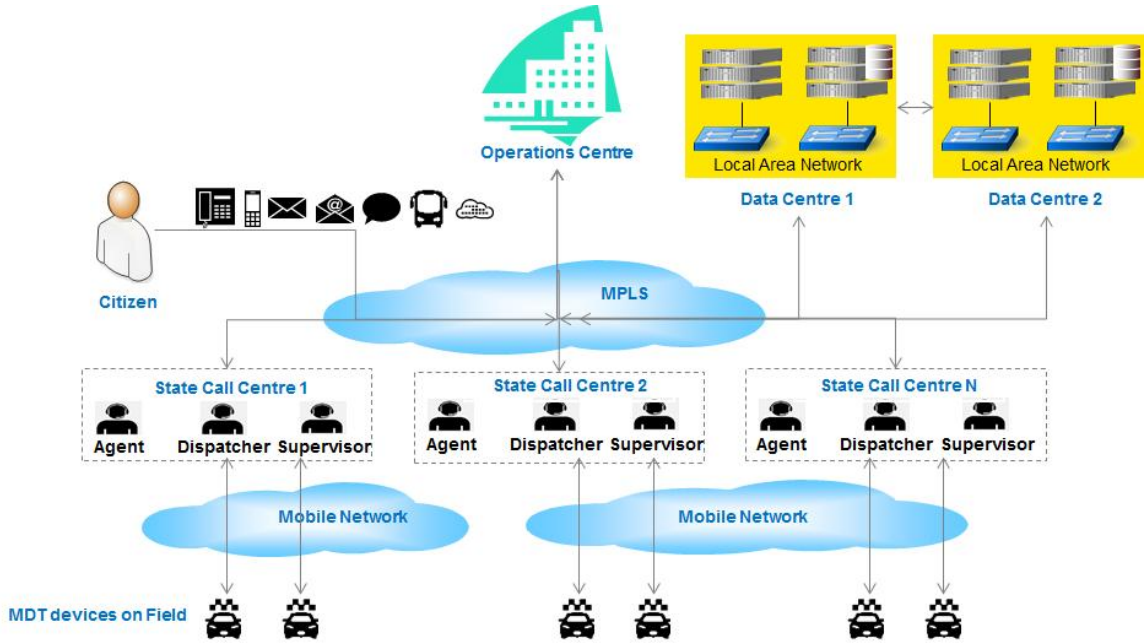
Emergency vehicle would arrive at scene and report the action taken through MDT to the State/UT call centre. When the case is reported to Police Station, it would be closed in the NERS.

5. Feedback

Post the event, either caller or call centre agent can connect (through call/ message/ email/ mobile application) to receive feedback on the services. Feedback would help in improving the efficiency and effectiveness of the system.

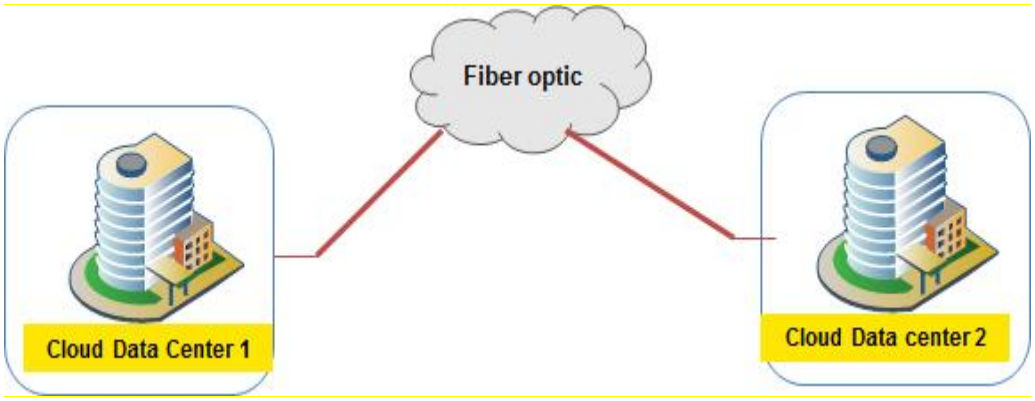
3. Technical architecture

The simplistic overview of the components of the solution is shown below and explained later in this clause.



3.1. Cloud enabled Data Centre

The selected ITSP would provide cloud enabled data centres- DC1 and DC2 in active -active mode. The connectivity between both the data centres should ensure that the replication works seamlessly without any data loss. The infrastructure provisioned in both DCs shall be capable to handle the 100% load at any point in time. The cloud infrastructure would be designed to avoid a “single point of failure” with redundant core components and other required elements to eliminate system outage. The proposed cloud infrastructure would have high availability i.e. there shall be no disruption in services on account of routine maintenance procedures, troubleshooting, loading hardware and software revisions, patches, etc.



3.2. Operations Centre

Operations centre is the hub of viewing and monitoring of performance of the emergency response system. It houses Network Operations Centre-NOC, Security Operations Centre-SOC, visitor gallery, IT helpdesk and reception. Generation of MIS reports, Business Intelligence (BI) reports and other analysis would also be performed at Operations Centre. Operations Centre would run 24 * 7 * 365 days and will be located in Delhi, Noida or Gurgaon.

3.3. State/UT Call Centre/ PSAP

States/UTs would be responsible to set up the State/UT call Centre/ PSAP at a place identified by them anywhere in the State/UT (preferably capital city or any other big city).All calls/ data messages would mature at the State/UT Call Centre, after identification of correct the State/UT. Voice/ data message will be assessed by the PSAP agents and appropriate action shall be taken through the dispatcher. Emergency vehicles would be dispatched based on the GIS maps used by the system. Feedback, complaints, comments etc. are also to be managed by the State/UT Call Centre.

Normally, one central PSAP with adequate sizing of the infrastructure should meet the requirement of any state/UT, however in case any State/UT requires more than one PSAP or multiple dispatch centres across the State/UT, MHA would provision the same for the State/UT based on the justification provided. MHA would provide the additional expenses required on network bandwidth, hardware, application as required for the additional PSAP or additional dispatch centre.

3.4. Field

Mobile Data Terminal (MDT) devices would be provided to the police vehicles which would be tracked using GSM/GPRS/GPS at data centre. Information about the incident would be sent to the field officers through MDT devices in terms of messages, mails and calls. MDT may be provided in phased manner during implementation of the NERS. Call closure would happen through MDT. However voice communication to PSAP may also trigger call closure at PSAP. Message may be passed to police post as well in case of emergency.

3.5. Network

Network would form the key component of the entire solution. Network connectivity would be required between Cloud enabled DC sites, Operation Centre and the State/UT Call Centres. This would be provided by the ITSP. MDT will be connected using GSM/GPRS network, to be provided by the State/UT.

4. Centre and State/UT responsibilities

The success of NERS depends upon the coordination between the Centre and the States/UTs. This section details out the responsibilities of the Centre and the States/UTs.

The entire set up of the IT system would be at centralized location and would be monitored by IT team of the MHA. Operationalization of the system would happen at the State/UT level. States/UTs would be responsible to set up the PSAP/ call centre for handling the emergency calls and deploying vehicles in the field (to be fitted with MDTs provided by ITSP).

4.1. Responsibilities of MHA

MHA would take responsibility for interacting with the States/UTs, ITSP and other stakeholders of the project. States/UTs will submit a detailed proposal to the MHA about their requirement of hardware and software in the format as given in Section 11.1of these guidelines. In view of the same, the MHA would be responsible for the following:

1. To develop overall strategy for achieving the objectives of the NERS.
2. To provide overall guidance to the States/UTs for implementation of the NERS Project
3. Engage ITSP and Central PMU for implementation and monitoring of the NERS Project respectively.
4. Constitution of governance structures for monitoring and decision making for the NERS.
5. Overall monitoring and evaluation of the NERS project.
6. Appointment of central project management unit to coordinate and support implementation of the NERS.

7. **Hardware**:
    a. MHA would receive proposal from the State/UT for the PSAP. It would include IP phone, desktops, MDT devices, PRI lines and UPS.
    b. Based on discussion with the State/UT,the MHA would approve the required quantity of hardware.
    c. The required hardware would be supplied and commissioned by the ITSP at the State/UT identified PSAP location

8. **Application**:
    a. All applications would be centrally hosted at the DC.
    b. States/UTs would indicate the number of licenses for various applications required by them to the MHA in their proposal.
    c. Based on discussion with the State/UT, the MHA would approve the required licenses.
    d. MHA would validate and approve the periodic forecasting of call volumes provided by the State/UT for increase of resources.
    e. Application would support multiple vernaculars. These are Assamese, Bengali, Gujarati, Kannada, Malayalam, Marathi, Oriya, Punjabi, Tamil, Telugu and Urdu. State/UT may get their application customized to any vernacular mentioned here.
    f. Maintenance of the application would be responsibility of the ITSP and would be monitored by the MHA

g. Application can be customized to route the overflowing calls from one State/UT to the neighboring State/UT. States/UTs need to have MoU amongst themselves for the same. State/UT would inform ITSP of the collaboration with other States/UTs and ITSP would make the provision in the system.
h. Any solution enhancement or customization may be proposed by the State/UT which would be evaluated by the MHA. Based on the assessment, ITSP would implement the enhancement/ customization.

9. **Network**:
   a. Network connecting cloud DC, operations center and PSAP would be provided by the MHA through ITSP and monitored by the MHA.
   b. Based on the bandwidth consumption, payment for network bandwidth would be made by the MHA.
   c. MDT devices would be connected to the State/UT PSAP through GSM/ CDMA network. This network would be provided by the State/UT and the cost for the same would also be borne by the State/UT.
   d. PRI lines may be provided at the Central DC or at the State/UT level depending on the solution design of the ITSP. PRI lines would be based on the assessment of the call volume at the State/UT. Cost for PRI lines (if any) would be borne by MHA.

10. Data Centre
   a. DC would be provided on public cloud by ITSP. MHA would monitor the same.
   b. State/UT would not have any responsibility regarding the DC.

11. Training
   a. Technical training would be provided by ITSP for the implemented the NERS.
   b. ITSP would also provide soft skill training to the PSAP agents.
   c. ITSP would also train one person from each Police Station on NERS and MDT use. Trained persons would be required to train other personnel in the respective police stations.
   d. State/UT needs to provide detailed standard operating procedures (SOP) to its agents for handling the emergency calls.

12. Operation and maintenance
   a. MHA would maintain the project for 5 years.
   b. Annual maintenance cost of hardware and software would be borne by the MHA
   c. MHA would also maintain the network from the State/UT call center to DC.

13. Call retention
   a. MHA would define the policies for retention of records including voice recording, screen recording, case details etc.
   b. Records would be deleted in consultation with the State/UT.

14. Manpower

a. MHA would provide staff for facility management services (FMS) to the State/UT call center
b. The (FMS) staff would help the State/UT call center personnel with the IT related problems. FMS staff would have basic understanding of MDT, Desktop, Network, applications etc.

15. National campaign

a. MHA would take up nationwide campaign in partnership with the States/UTs to educate citizens about the key features of NERS and how to access the services.
b. Nationwide campaign would focus on the national approach of '112' emergency number to cater to all kinds of emergency.

4.2. Responsibilities of State/UT

MHA expects full participation of the State/UT in the NERS implementation. State/UT would be responsible for managing the entire operations of the PSAP. State/UT would be responsible for the following:

1. Full support to the MHA and ITSP for implementation at the State/UT in a time bound manner.
2. Provide proposal with appropriate requirements to the MHA.
3. Constitute State/UT level committees as per the guidelines.
4. Identify NERS nodal officer to interact with the MHA frequently.
5. Ensure continuity of the officials in the NERS project
6. Define the State/UT level SOP for responding to emergency calls by the state call centre as well as field units
7. Ensure quality of service at the call center/ PSAP as well as in the field.
8. Arrange third party audit of the NERS project in the State/UT
9. Take up necessary changes to rules/ processes to allow use of the NERS as primary system for recording the emergency calls.
10. Provide sign off on the work done by ITSP in timely manner.
11. Forecast the number of calls based on various parameters applicable to the State/UT and inform MHA in case of any additional resource requirement.
12. Integrate with existing Dial 100 and other emergency services.

13. Set up call center / PSAP

a. Identify a location for setting up of the PSAP.
b. Provide basic furniture, power, generator back up, amenities, air conditioning etc. at the identified location
c. Maintain the entire PSAP and expand it if required
d. Maintain the PSAP including space rental, alternate power supply, amenities, furnishing etc.

14. Manpower

a. Select manpower for handling the NERS including call takers, dispatchers and center in charge.
b. Incentivize the manpower deployed in the NERS, if required
c. Prepare System Operating Procedure (SOP) and train the manpower on the SOP

d. Train the manpower on soft skills. It should also include training of different dialects of a State/UT, if required.
e. Maintain back up manpower in case of leaves, attrition etc. of the deployed manpower.
f. Provide manpower to collect GIS data at field level for new locations to be entered in GIS map.

15. MDT

a. Provide 2 wheelers and 4 wheelers in sufficient number for dispatch in case of emergency.
b. Arrange for all vehicles at district level location for installation and commissioning of the MDTs.
c. Map each MDT to a police station and vehicle by entering information through NERS portal.
d. Maintain the MDT and use the same judiciously.
e. Report any issue in the MDT to the State/UT PSAP. Bring MDT device to district level in case of any change or repair.
f. Provide mobile network connectivity to MDT to connect with the DC.

16. Call retention

a. Identify call records, voice recording and screen recordings to be retained for longer duration than the defined period by the MHA
b. Regularly update the MHA for the records to be retained.

17. Operations and Maintenance

a. Provide support to the MHA during the operation and management phase
b. Timely submission of MIS reports, raising the concerns and monitoring overall activities of ITSP at the State/UT level.
c. Provide suggestions and support to integrate with other departments/ ministries.

18. State/UT Campaign

a. Support the MHA in building awareness about NERS at the State/UT level
b. Responsible for taking up awareness campaign within the State/UT.

The summary of key responsibilities is provided in the table below.

Responsibility	Centre	State/UT
Before Implementation		
Selection of ITSP for implementation and maintenance of NERS	Primary	-
Selection of CAD service provider	Primary	-
Selection of Central PMU for monitoring of NERS implementation	Primary	-
Signing MoU with the State/ UT	Primary	Primary
Constitution of governance structures at respective level	Primary	Primary
Identify the State/UT nodal officer	-	Primary
Submission of proposal for NERS and approval	Secondary	Primary
Change in any process/rules at the State/UT level to allow use of NERS	-	Primary
During Implementation		
Design of NERS system	Primary	Secondary
Requirement gathering at the State/UT	Secondary	Primary
Commissioning of application	Primary	Secondary
Requirements for customization of applications	Secondary	Primary
Cloud DC/ DC set up	Primary	-
Network to all locations (DC, operations center, State/UT call center)	Primary	Secondary
Supply and commissioning of IT Hardware at operations center, call center and field	Primary	Secondary
Space for operations center	Primary	-
Purchase of SIM cards for MDT with GPRS/ data services	-	Primary
PRI lines (inbound and outbound)	Primary	Secondary
Interaction with ITSP and TSP	Primary	Secondary
Provide 2wheeler and 4 wheeler vehicles for emergency response	-	Primary
Arrange vehicles at district level for commissioning or any repair of MDT	-	Primary
Map MDT to police station and police personnel	-	Primary
Setup call center (physical space, furniture, amenities)	-	Primary
Identification of manpower (call taker, dispatcher, on-field	-	Primary

Responsibility	Centre	State/UT
staff)		
Identification of vehicles at district level	-	Primary
Commissioning of MDT in vehicles at district level	Secondary	Primary
Training (soft skills)	Secondary	Primary
Training (technical skills)	Secondary	Primary
SOP for the operations	Secondary	Primary
Review, validate and approve implementation activities	Primary	Secondary
Go-live sign off at operations center and DC	Primary	-
Go-live sign off at the State/UT Call Centre along with field	Secondary	Primary
Maintain power backup beyond UPS power	-	Primary
Post Implementation		
National campaign	Primary	Secondary
PSAP operations	Secondary	Primary
Forecasting of call volume	Secondary	Primary
Policies for call retention	Primary	Secondary
Information for call retention	-	Primary
Ensure quality of services is provided to the citizens through the State/UT PSAP	Primary	Primary
Audit of voice, process and technology	Primary	-
Maintenance of PSAP/ State/UT Call center including space rent, utilities, amenities etc.	-	Primary
Provide reports, raise concerns and overall monitoring of the State/UT PSAP	-	Primary
Provision for FMS staff	Primary	-
Maintenance of NERS system, hardware, MDT, network etc.	Primary	Secondary
Monitoring of entire system	Primary	Secondary
Update NERS system – application, hardware, network etc. when required	Primary	Secondary
Solution enhancement to include services offered by more Ministries/ Departments	Primary	-

5. Norms for resource provisioning for State/UT

MHA would optimize and allocate required resources to each State/UT for operations of NERS. Resources such as hardware, network, MDT would be provided to the States/UTs through the ITSP.

State/UT would be required to submit the resource requirement in the proposal format attached with the guidelines. MHA would evaluate the proposal in consultation with the concerned State/UT and allocate required resources to the States/UTs. Guidelines for allocation of the resources are provided below.

5.1. Hardware for State/UT Call Centre

The items provided at the State/UT would be desktops, IP phone, routers, managed access switch, UPS and PRI Lines. The general guidelines for hardware allocation are:

1. Each call taker and senior call taker would be given desktop with single screen
2. Each dispatcher and center-in-charge would be given desktop with 3 screens
3. IP phone would be provided to all agents including call taker, senior call taker, dispatcher and center-in-charge.
4. One router and one managed access switch would be provided at each State/UT to terminate the network at the State/UT PSAP
5. 1 UPS would be provided to each State/UT to maintain the power back up for 1 - 2 hours. Beyond the UPS capacity, the State/UT is required to maintain backup for longer power cuts through DG sets or alternate power source.
6. PRI lines would be provided based on the number of call takers in the State/UT.
7. Interiors, electrical wiring and LAN cabling needs to be done by the State/UT.

5.2. MDT devices for the field

Two kinds of MDT devices are being procured by MHA from ITSP – rugged MDT and non-rugged MDT. There are two sizes in non-rugged devices – 5.5 inch screen and 8 inch screen. 5.5 inch screen device would be used only for 2 wheelers since it can be carried in pocket easily. The general guidelines for MDT allocation are:

1. Rugged devices are for areas having difficult terrain and extreme weather conditions in the country. Any State/UT which requires rugged devices would provide the details of districts where terrain/ climate are difficult.
2. As a general rule, each State/UT would be provided on an average 6 MDTs (Maximum) per police station. State/UT can provide proposal as per actual number of vehicles available in the State/UT.
3. State/UT may optimize the MDT devices per police station based on their assessment
4. State/UT needs to define the type of vehicle as well for MDT device
5. All 2 wheeler vehicles would be provided non-rugged 5.5 inch screen MDT device. It is expected that the MDT device for 2 wheelers would be carried around by the police personnel.
6. State/UT would procure the SIM cards for the MDT devices to connect to the DC. Operational cost of the SIM cards with 3G/2G data connection would be borne by the State/UT.
7. MDT can be provided in phased manner in the State/UT.

5.3. Application at State/UT Call Centre

MHA would provide multiple applications for the NERS. The general guidelines for application are:

1. All the applications would run centrally from the cloud DC.
2. Go- live of application would be considered when state/UT can complete the entire cycle of process through the application. The entire cycle of process would begin with incoming call/ data message and would end at feedback from the citizen. Process flows are provided earlier in the guidelines.
3. Access to the specific modules of the application for each role would be provided at the State/UT call center
4. Records would be maintained centrally for 90 days and would be removed after that. State/UT would identify the records to be stored for longer duration and inform MHA about the same. State/UT should inform about the same by 15th of every month.
5. MHA would generate MIS reports from the application for analysis. MHA would provide functionality to view MIS reports as per requirement of the State/UT.
6. CAD application may be deployed on the existing mobile phones of senior police officials to track calls and action taken on various calls.

5.4. Network at State/UT Call Centre

MHA through ITSP would provide primary and secondary network to connect the State/UT call center with cloud DC. The general guidelines for network are:

1. Network bandwidth requirement would be assessed by the ITSP based on volume of calls and number of call takers in the State/UT
2. ITSP would maintain the service levels for the network
3. In case of any latency in the network or other issues, ITSP would be required to upgrade the network
4. State/UT would be responsible for the GSM/GPRS/CDMA network of MDT devices. All devices should be connected to the DC at all times.
5. Network for connecting PSAP to multiple dispatch center in the State/UT would be provided by MHA.

5.5. Manpower

1. Following roles are required at the State/UT PSAP:
   - Inbound call takers: agents who will receive the incoming calls in the State/UT call center
   - Senior Call takers: agents who will take complicated calls and would handle escalations from inbound call takers
   - Outbound callers: agents who will make outgoing calls in case of missed call, dropped calls, follow up etc.
   - Non voice agents: agents who would manage SMS, VoIP, email, chat messenger etc.
   - Dispatcher: agents who would dispatch the vehicles based on the information received from call takers
   - Administrator & Centre In charge: would supervise the operations of entire PSAP
2. Number of outbound agents should be approximately 5% of the inbound call takers

3. Number of dispatchers should be approximately 15% of inbound call takers
4. Each State/UT should have one administrator and center in charge.
5. One FMS personnel would be allocated per 50 agents.

6. Governance Structure

MHA would set up committee at Central level to manage the project implementation in timely manner. Similarly, State/UT would be required to set up the Committees at the State/UT level for proper monitoring of the implementation. The committees proposed below are indicative and may be changed later.

6.1. Centre level Committee

Committee	Composition	Responsibilities
Empowered Committee	▶ Home Secretary (Chairperson) ▶ Additional Secretary (CS) ▶ Additional Secretary (Disaster Management) ▶ AS &FA, MHA ▶ JS or above level representative of MWCD ▶ JS or above level representative of HFW ▶ JS or above level representative of MoRTH ▶ JS(DM), MHA ▶ DDG (AS-1), DoT ▶ DDG (Security), DoT ▶ JS or above level representative of DeiTY ▶ DG, Cert-in ▶ Head Technology, MHA ▶ Any other member to be co-opted by Chairman ▶ JS (CS) (Convener)	▶ Approval for the NERS project ▶ Overall direction, monitoring and guidance of the project ▶ Decision regarding adding new services/ helplines in the NERS project. ▶ Approval of proposal from the State/UT ▶ Approval of any change request of ITSP and CAD SP
Steering Committee	▶ Joint Secretary (Centre-State) (Chairperson) ▶ Director in charge of NERS Project in CS division ▶ Representative of NIC, MHA ▶ Head Technology, MHA ▶ CISO, MHA ▶ Project Director of ITSP ▶ Project Director of CAD SP ▶ Central PMU Head ▶ Representative of other ministries as applicable	▶ Responsible for implementation of the project ▶ Review proposal of the State/UT and recommend to Empowered Committee ▶ Regular meeting to track the progress of the project ▶ Take periodic update of the project and suggest corrective measures if project is not on track ▶ Monitor functioning of Central PMU, ITSP, CAD-SP ▶ Monitor contracts of ITSP and CAD-SP including SLA ▶ Finalizing deliverables and customization requirements of the state/UTs ▶ Technical and financial evaluation of change request and recommendation to Empowered Committee ▶ Review of security audit reports ▶ Review of QA reports of State/UTs

Committee	Composition	Responsibilities
Domain committee	▶ JS (CS) (Chairperson) ▶ Nodal officers of States from five different states on rotation basis ▶ Director in charge of NERS in MHA ▶ Head Technology ▶ Project Director, ITSP ▶ Project Director, CAD-SP	▶ Collection and validation of business requirements ▶ Review and finalize SOP submitted by state/UTs

6.2. State/UT level Committee

Committee	Composition	Responsibilities
State/UTApexCommittee	▶ Chief Secretary (Chairperson) ▶ Principal Secretary Home ▶ DG, Police ▶ Principal Secretary Disaster Management ▶ Principal Secretary WCD ▶ Principal Secretary Health ▶ IT Secretary ▶ Representative from NIC ▶ Representative from MHA ▶ Any other representative based on the services added to NERS ▶ NERS Nodal officer (Convener)	▶ Highest level of approval for State/UT level ▶ Responsible for overall project implementation ▶ Report any concern to Steering Committee at center ▶ Review progress of the project ▶ Finalization of state/UT level SOP ▶ Decision regarding adding new services/ helplines in the NERS project at state/UT level ▶ Periodic meeting to discuss the progress of the project, at least once a quarter
State/UT Steering Committee	▶ DG, Police (Chairperson) ▶ NERS Nodal officer ▶ Representative from Home Department ▶ Representative from WCD ▶ Representative from Health Department ▶ Representative from Disaster Management ▶ Representative from IT Department ▶ Any other representative based on the services added to NERS	▶ Overall direction, monitoring and guidance of the project ▶ Manage implementation across all districts ▶ Approve location of PSAP, manpower, operational budgets etc. ▶ Monitor PSAP operations through MIS reports ▶ Ensure proper training arrangements ▶ Ensure deployment of appropriate trained manpower for NERS state/UT call center ▶ Handle procedural issues ▶ Monitor hardware and application roll out at call center and field (MDT) ▶ Approve go-live at the State/UT ▶ Monitor service levels at state/UT ▶ Regularly communicate with Steering Committee at center on progress, challenges, requirements

Committee	Composition	Responsibilities
		etc. for the project ▶ Oversee and manage integration with other services/ ministries ▶ Guidance to District Mission Committee ▶ Regular meeting to discuss the project (preferably once a month)
District Mission Committee	▶ District Collector[1]/ SSP of District (Chairperson) ▶ Representative from WCD ▶ Representative from Health ▶ Representative from Disaster Management ▶ Representative from IT Department ▶ Any other representative based on the services added to NERS ▶ NERS nodal officer of district (convener)	▶ Coordinate with other departments to ensure smooth integration with NERS ▶ Highlight concerns to the State/UT Empowered Committee ▶ Ensure integration of all services with NERS ▶ Ensure SOPs are followed. Any deviation from SOPs should be acted upon ▶ Ensure MDTs is deployed in vehicles ▶ SIM cards are functional ▶ Periodic reporting ▶ Monitoring of cases handled through NERS system ▶ Collecting feedback from people ▶ Ensuring quality of service

[1]When other emergency services are integrated with NERS, then the overall in-charge of the district would be with District Collector

7. Quality of Service

Maintenance of quality is the key to successful operation of the NERS system. MHA would closely monitor the quality of service provided by ITSP. States/ UTs are expected to closely monitor the quality of service provided by the PSAPs to the distressed citizens, which will also be audited by MHA appointed third party periodically. Quality of service would be monitored in the following areas;

Tools for ensuring quality	Actions required
Training	▶ Compliance to training schedule and requirement ▶ Each and every person working for NERS to be trained ▶ Feedback collected from the trainees would be evaluated ▶ Evaluation test post the training may be conducted
Voice audit	▶ Random audit of the recorded voice conversation of the PSAP agents and distressed citizens ▶ Clarity of voice, handling of situation, tone of voice would be audited
Feedbacks	▶ After the closure of call, citizen or PSAP agent can connect to provide the feedback on the service provided ▶ This feedback would be collated and provided to the MHA for evaluation
Reward system	▶ Quarterly award to the best performing call taker, dispatcher and supervisor ▶ Rewards would be given on measureable KPIs and parameters
Availability	▶ State/UT would ensure 24*7 availability of planned manpower ▶ Back up manpower may be planned by the States/UTs in case of emergency
Surprise visits	▶ Senior officials from the State/UT and also MHA may conduct surprise visit to the State/UT PSAP for monitoring the operations of the State/UT
Annual survey	▶ MHA would develop annual survey for measuring the satisfaction level of the citizens assisted by the State/UT PSAP personnel ▶ An incentive scheme for personnel working in the States/UTs will also be worked out to ensure Quality of Service ▶ This would provide improvement areas to MHA

The quality of service in the NERS project would be measured on the quality parameters. These parameters would be applicable for the ITSP, CAD-SP and the State/UT PSAPs. For monitoring the ITSP, detailed service levels are provided in the NERS RFP for selection of ITSP. Strict adherence to all SLAs by ITSP and CAD-SP would be monitored centrally by MHA. For the State/UT PSAP, quality parameters are defined below. State/UT will ensure adherence to the quality parameters and will submit adherence report to the Steering Committee every month.

Stakeholder	Quality parameters	Target
Citizen	Ease of reporting any crime/ complaint	-
	Average time taken to receive the emergency service	As per State/UT SOP
State/UT PSAP	▶ Availability of all call takers, dispatchers and other manpower	95% of planned manpower
	▶ Number of cases closed within 3 hours of reporting	80% of the cases reported
	▶ Every personnel of the State/UT PSAP should be trained on both soft skills and technical skills	100%
	▶ Call quality score (based on voice audit process)	More than 80%
	▶ Average satisfaction score of citizens collected through feedback calls/ SMS/ other means	More than 85%
	▶ Increase in number of cases reported to the call center	10% increase every 6 months
	▶ Any instance of unavailability of PSAP	Zero
	▶ Average speed to respond to calls	Less than 15 seconds
	▶ Call abandon rate	Less than 5%
	▶ Average time taken by the call taker before forwarding to dispatcher	Less than 2 min
	▶ Average time taken by the dispatcher to identify and dispatch emergency vehicle	Less than 2 min
	▶ Average time taken by emergency vehicle to respond through MDT	Less than 15 seconds
Field	▶ Average time taken to reach incident place	As per state/UT SOP
	▶ Availability of MDT devices (availability is defined as MDT being connected to the State/UT PSAP)	95%
	▶ Availability of all personnel managing MDT devices	95%
	▶ Number of cases dropped/ not attended by emergency vehicle allotted	Less than 5%

8. Monitoring of NERS project

NERS project would be closely monitored at both the Centre and the State/UT levels. At the centre, MHA would interact extensively with other concerned Ministries in the Government of India, ITSP, CAD-SP and the State/UT governments for timely and successful implementation of NERS Project.

MHA would establish multiple levels of controls to monitor the project. These controls are:

1. Centre level committee
   As illustrated in section 6.1, these committees would keep close watch on the overall project.

2. State/UT level committee
   As illustrated in section 6.2, these committees would be responsible for operational matters with regards to state/UT.

3. MHA- IT personnel
   MHA has appointed IT personnel to monitor various IT projects within MHA. These personnel would head the entire IT operations during the implementation of the NERS.

4. Central project monitoring unit (CPMU)
   MHA would appoint CPMU for day-today monitoring of the project. CPMU would assist MHA –IT personnel and would report directly to the Steering Committee.

5. Service level of ITSP
   Multiple service levels would be applied on ITSP to maintain high standard of performance. CPMU along with MHA-IT personnel would monitor the performance of ITSP through these SLAs.

6. IT helpdesk
   ITSP would set up IT helpdesk for complaint resolution. MHA would monitor the complaints logged at IT helpdesk to monitor the health of the system.

MHA would also establish reporting mechanism to monitor and document the progress of the project. Some of the indicative reports are provided in table below.

Report	Report detail	Owner	Reported to	Frequency
State/UT Report	Progress of NERS, challenges, health status of NERS, call volumes	State/UT Empowered Committee	Steering committee, MHA	Monthly
Project status report	Overall project progress	CPMU	Steering committee, MHA	Fortnightly
Service level report	Compliance to the SLA by ITSP and details of shortcomings	ITSP/ CPMU	Steering committee	Monthly

Report	Report detail	Owner	Reported to	Frequency
High level status	Brief project status that can be circulated among other stakeholders	Steering committee	Empowered committee and all State/UTs implementing NERS	Once in two months
Complaint resolution	Report of complaints logged by State/UTs and resolution details	ITSP – IT helpdesk	Steering committee	Weekly
Operation center report	Business intelligence reports that showcase the call volume, crime rate, call assessment reports etc.	ITSP	Steering committee, All States/UTs	Monthly

9. Future Extension

The NERS system is designed to be scalable in the future. Scalability and extension from various perspectives is considered under the NERS. Some of the planned extensions are:

1. Forecasting

Based on the call volumes, the State/UT PSAP would increase the resource requirement with respect to agents, hardware, network bandwidth, application licenses etc. The State/UT would be required to periodically check the status of the requirement and forecast the increase of volume in advance. Advance reporting of any increase which results in augmentation of resources would help MHA to procure the resources timely through ITSP.

Based on the forecasting submitted by the State/UT, extension on number of licenses, agents and hardware would be provided by the MHA. State/UT should forecast their calls based on the following parameters:

- Calls received per day
- Dispatch calls
- Peak hour calls
- Hoax calls
- Information calls
- Missed calls
- Counselling calls
- Any large planned event

2. Special requirement

In case of special requirement of the State/UT to scale up, such as religious gathering, natural disaster or any such unforeseen event, the State/UT may partner with neighboring State/UTs to attend to the incoming calls from distressed citizens. This can be temporary arrangement amongst the State/UTs. ITSP would route any overflowing calls to the neighboring State/UT PSAPs as indicated by the States/ UTs

3. Multiple Call Centre and dispatch centre

With the increase of the call volume, the State/UT may require multiple call centers or dispatch centre at different geographies in the State/UT. The same may be set up by the State/UT. The hardware, network and applications for the additional call centerand dispatch centrewould be provided by the MHA.

4. Inclusion of other services

As per TRAI Recommendations which have also been accepted by the DoT, other services like fire, medical, helplines, highway patrol etc. are to be integrated with the ‘112’ system. After successful rolling out the project for assisting the women in distress, the States/UTs will prepare an action plan as per their local conditions for integrating other services and helplines with NERS (112) system. In such scenario, hardware cost for the other services would be borne by the State/UTs or the line Ministry in the Government of India supporting such integration.

5. Increase in dispatch vehicles

State/UT would have to inform the MHA about any increase in the number of dispatch vehicles. MHA would provide approval based on the assessment. ITSP would provide extra MDTs to the State/UT in such cases. However, all such vehicles and MDTs will have to be in active mode and connect to the NERS applications. All the MDTs should be discoverable by the EMS system deployed in the data centers.

10. Implementation of NERS

The step wise plan of implementation of NERS is provided below. It is expected that the State/UT would adhere to the following plan.

1. **Signing of MoU**
   The State/UT would sign MoU with MHA. MoU details out the agreement between the Centre and the State/UT for implementation of NERS.

2. **Appointment of committees**
   State/UT needs to appoint the committees as provided in the guidelines and notify the same to the MHA. Other than the committees, the State/UT would also appoint a nodal officer for the project. The State/UT Nodal officer should not be below rank of IG, Police.

3. **Submission of proposal**
   The State/UT would submit the proposal in the given format to the MHA.

4. **Meeting with State/UT Nodal officer and evaluation of the proposal**
   MHA would hold a meeting with the State/UT nodal officer to evaluate the proposal and approve the requirements of the State/UT. During the meeting detailed timeline for implementation of the project will be finalized.

5. **Set up of PSAP civil infrastructure**
   State/UT would identify the space to set up the PSAP. Only after the completion of PSAP, ITSP can start deployment at the State/UT level. Site specific design and layout for PSAP will be provided by the ITSP. State/UT needs to provide completion letter for the PSAP to the MHA. Wiring and LAN points should be made available to ITSP.

6. **Deployment by ITSP**
   Post the completion of PSAP civil infrastructure, ITSP would provide the hardware and network to the State/UT. ITSP would commission the application from the State/UT PSAP and train the identified manpower on the applications.

7. **Go-live approval**
   State/UT would be required to provide go-live certificate to the ITSP for release of their payments.

8. **Maintenance of system**
   ITSP would maintain the system centrally through the cloud DC. Facility management staff would also be provided at the State/UT during the contract period of ITSP. Central IT helpdesk would also be set up to centrally log any complaints related to the system. Support from the State/UT would be required throughout the implementation of NERS.

9. **Build awareness**
   MHA would run national campaign for building awareness of NERS system. State/UT would be required to support MHA in building the awareness. States/UTs would run campaigns within their jurisdiction through popular media channels.

10. Addition of new service

In case of addition of new service, the same needs to be informed to the MHA through a separate proposal. State/UT needs to identify the nodal officer from the added department. New nodal officer should be made part of committees at all levels.

11. Annexure

11.1. Proposal submission format for State/UT

States/ UTs will submit the project proposal to MHA covering the points indicated in the table below.

Nationwide Emergency Response Centre – Proposal Format		
S. No.	**Requirement**	**Detail**
1.	State/UT Name	
2.	Crime rate in the State/UT for the past 5 years	
3.	Details of Nodal officer	
4.	Details of Committees constituted at State/ UT level	
5.	PSAP details	
i.	Location (with complete address)	
ii.	Number of expected calls	2015-16: 2016-17: 2017-18:
iii.	Number of call takers required	
iv.	Number of dispatcher required	
v.	Number of supervisor required	
6.	Field details	
i.	Number of rugged device for 4W(Please provide reason for rugged devices)	
ii.	Number of non-rugged device for 4W	
iii.	Number of non-rugged device for 2W	
iv.	Number of police stations	
v.	District wise requirement of MDT	Please attach separate sheet for district wise requirement of MDT
7.	Roadmap for integration of other emergency services if any	
8.	Any other requirement	

11.2. Applications in NERS

The following applications would be provided under NERS:

1. Computer aided dispatch (by CDAC)
2. Contact center (on cloud)
3. Case Record Management (CRM)
4. Nirbhaya Portal
5. Business Intelligence (BI), Reporting & Analytics
6. Enterprise Management System (EMS)
7. Identity Management Software (IMS)
8. Email Solution
9. E-Learning Software
10. Anti-Virus
11. Directory Services
12. Intranet Web Portal