

**E-Governance  
Mission Mode Project**

**Crime and Criminal Tracking Network and Systems**

Standard Operating Procedure  
for  
Site Preparation

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## 1. Introduction

The document explains the general principles and procedures for Site Preparation. Hardware sizing and site preparation at Police Stations and Higher Offices will be done based on actual assessment of need and as per norms and specifications provided in the SI RFP.

## 2. Application

The Procedure detailed here provides general guidelines that shall be followed by the SI in each State/UT to carry out activities related to site preparation.

## 3. Glossary

<b>Term</b>	<b>Definition</b>
CAS	Core Application Software
CCTNS	Crime and Criminal Tracking Network and Systems
DMT	District Mission team
DRC	Disaster Recovery Centre
MPLS	Multiprotocol Label Switching
POP	Point of Presence
RFP	Request for Proposal
SCRB	State Crime Records Bureau
SDC	State Data Centre
SI	System Integrator
SOP	Standard Operating Procedures
SPMU	State Program Management Unit
STIC	State Technical Infrastructure Committee
SWAN	State Wide Area Network
UT	Union Territory
WAN/LAN	Wide Area Network/Local Area Network

## 4. Procedure and Analysis

Site preparation at Police Stations and Higher Offices is an important activity that is to be carried out by the State selected System Integrator (SI). Site preparation will ensure site readiness for the implementation and commissioning of the hardware required for successful functioning of CCTNS project. Site Preparation shall cover all the activities necessary to enable each Police Station/Higher Office to setup the site infrastructure and reach the readiness state required for implementation of CAS.

As part of the site preparation activities, SI shall undertake civil, electrical, and mechanical works including but not limited to installation of electrical equipments, cable laying, earthing etc., at the respective sites. The SI (and SPMU) should place qualified personnel for performing/managing Site Preparation, as promised in proposal response submitted by the SI (and SPMU). The SPMU/State needs to ensure the same.

### Site preparation: Steps to be undertaken by the State/ UT Officials

1. Prior to commencement of Site Preparation, approval by the State Nodal Officer, CCTNS, to carry out Site Survey and Preparation, should be provided to the SI. A copy of the approval letter should also be sent to each district and the related Police Stations/Higher Offices.

2. The below mentioned procedure needs to be ensured by the State Technical Infrastructure Committee (STIC) or other State Agencies as part of Site Preparation. STIC shall comprise of members belonging to the State DIT, NIC, State Police (technical representative) and SPMU.
  1. SCRB shall conduct a sensitization program briefing the district teams regarding CCNTS project, CAS application, Data Digitization, Roles and Responsibilities of District Police etc.
  2. A detailed list of police stations (of pilot districts to start with), along with details of nominated police official at each police station, should be handed over to the System Integrator before initiating the site preparation work. Each Police Station/Higher Office shall also be assigned a unique number for reference. Contact details of focal points in the districts should be supplied for liaison.
  3. The identified police official should ensure that all the information needed by the SI to complete the Site Survey is provided.
  4. SPMU/ DeMT members should ensure that the computers and peripherals as well as computer furniture procured by the System Integrator are as per the RFP. States/UTs may like to undertake inspection of one (1) item per product type (or) all the items at factory premises before despatch. Further, once the lot reaches the District Reserve office (or) SPHQ reserve, they should be checked again entered in the Reserve Stock Register and distributed to the respective locations in police stations/higher offices. These should be entered in the Government Property Register as well as in the Computer Accessories Register before the SI dispatches the furniture to the districts/police stations and higher offices.
  5. Nodal Officer should take regular update of the Site Preparation work being carried out by the SI and present the same to DeMT.
  6. Sign-off procedure is mentioned in **Annexure B**. Sample sign off sheet is attached at **Annexure C**.

#### **Site Survey: Steps to be undertaken by the Police Directorate and the Systems Integrator**

1. Site Survey is a pre-requisite to Site preparation. The District eMission Team (DeMT), comprising of the SSP/SP of the district - Chairperson, one officer of the DCRB, DIO of the NIC district centre and one officer from district police having computer knowledge, will review progress, address any pending issues and ensure site preparation and availability of all utilities. The SI will be supported by the DeMT or its representatives and the PS/HO officials in identification of the room & subsequent site preparation activities.
2. Nominated district police official/ DeMT representative along with SI representatives should finalize the physical location/room for installation of computers/ systems within the police station and higher offices in consultation with the head of the office (or) SHO, if it is a police station (or) the person nominated by the concerned heads. The storage space for keeping the license certificates and equipments should also be arranged for.
3. Nominated district police official/officer at police station level should ensure that adequate power points are created and proper electric – earthing is carried out by system integrator. UPS Room and battery banks location should be finalised at the time of site survey, which should be damp free.
4. The SI shall undertake Site Survey. Sample Site Survey Sheet is attached at **Annexure A**. The same may be customized by the SI, if required. The SI should

submit a Site Survey report to the DeMT for approval. DeMT shall approve the Site Survey report with recommendations (if any).

5. Site Surveyor shall ensure that 4 copies are created for each Site Survey
  - a. one copy will remain at the Site
  - b. one copy will be sent to SP Office
  - c. one copy will be sent to SCRB Office
  - d. one copy will be with the Surveyor

### **Site preparation: Steps to be undertaken by the Systems Integrator**

System Integrator shall undertake civil, electrical, cabling and network related work, apart from arranging for furniture and other essentials as proposed in the SI RFP.

The below listed procedures need to be followed by the Systems Integrator as part of Site Preparation activities:

1. The SI shall submit a time plan for all the activities for Site preparation to DeMT. SI shall begin the Site preparation post receiving a go-ahead from DeMT.
2. SI shall prepare One (1) model site at State level & Police station level and get approval from the District Mission Team (DeMT) and for higher offices from SCRB.
3. SI shall initiate the site preparation activities post receiving the aforementioned approval (Site preparation to be suspended in the event of any police station shifting to new premises within 1 year).
4. Provision of Local area network (LAN cables, I/O ports): This would involve laying down structured cabling using CAT-6 UTP cable, crimping of cables, fixing of patch panels and proper fixing of LAN cables in PVC conduits or raceways, provision of patch cords, connectors along with all the necessary accessories. SI needs to check if the existing network can be integrated with new network setup.
5. Testing and certification of structured cabling at each location and commissioning of the LAN by installing all the network components (active and passive). Commissioned LAN should meet the defined Service Levels. DeMT staff should ensure that the System Integrator should perform activities related to Local area network (LAN cables, LAN ports) as per the conditions laid down in the RFP.
6. The SI shall coordinate for provisioning and commissioning of the WAN (Wide Area Network) connectivity at police stations, higher offices and SDC/DRC sites with BSNL, SWAN Operator and SDC Operator.
7. The SI shall coordinate with SDC operator and BSNL for provisioning and commissioning of MPLS links at SDC and DRC sites.
8. The SI shall coordinate with SWAN operator for provisioning and commissioning of Ethernet/Fibre connectivity for the sites which are within 500 meters from SWAN Point of presence (POP).
9. The SI shall coordinate with BSNL and SWAN operator for provisioning and commissioning of 2 Mbps point to point leased line for the sites more than 500 meters and feasible from SWAN POP.
10. The SI shall coordinate with BSNL for provisioning and commissioning of the connectivity for sites feasible on VPNoBB, WiMAX and VSAT network.
11. The SI shall also monitor the speed of the WAN connectivity available at each site and need to report to the respective WAN provider (SWAN and BSNL) in case bandwidth is less than 256 Kbps excluding VSAT links.
12. The SI shall check/monitor the speed for VPNoBB and WiMAX links provided at respective sites and report to BSNL and CCTNS Nodal Officer in case the speed available at respective site is less than 256 kbps. Accordingly, BSNL would be

- required to upgrade the bandwidth at those respective sites. In case BSNL reports that there is a technical difficulty then the matter will be reported to the nodal officer.
13. Electric cabling for UPS & generator, changeover switch, circuit breaker etc. and power points in adequate numbers as per requirement with proper earthing
  14. Electric wire (5 Amp) – 2 Core + earthing wire (1/18) for computers, switch and peripherals.
  15. The power supply to the computer systems and switch should be dedicated with a separate MCB
  16. Provision should be made for nearly 15 Amp input and output of a 2KVA single phase UPS. The output of the said UPS should have further distribution system with the said MCB for supplying power to computer systems, printers and network devices.
  17. Each computer system should be provided with three nos. 5 Amp, 3 pin socket point along with switches, indicators and one fuse that will be connected to the main distribution board.
  18. Network system (Router, modem, Switch, etc) should be provided with three nos. 5 Amp, 3 pin socket point along with switches, indicators and one fuse which will be connected to the main distribution board.
  19. Each printer should be provided with two nos. 5 Amp/15 Amp (depending upon the power requirement of the printers), 3 pin socket point along with switches, indicators and one fuse which will be connected to the main distribution board. It should be ensured that the power supply to this network is always on. The whole arrangement (in dedicated space aesthetically and functionally) shall be done in consultation with the SHO.
  20. The power supply from the generator should be made available on a parallel connection with an appropriate change-over.
  21. SI should undertake supply of approved furniture like computer tables, chairs etc. As identified in the SI RFP.
  22. SI should ensure that all the I/O boxes/Plug Points etc are placed below 2 feet without hindering table space.
  23. SI should ensure that the electrical wiring is at 1.5 feet (18 inches) height from the floor level and the data wiring is at 2 feet (24 inches) from the floor level i.e., with a gap of 6 inches from the electrical wiring.
  24. Flat PVC conduits used by the SI should be of 1 inch. Sharp/smooth PVC bends shall be used across all the corners/pillars etc without damaging the walls/other infrastructure. Flexible hoses should not be used while moving wire from one floor to other.
  25. Uniform colour coding for wiring enclosed in a baton pipe should be followed across all the locations -
    - Phase – Red
    - Neutral – Black
    - Earth – Green
  26. Uniform Bus Bar should be used across all the stations
  27. Subsequent to completion of site preparation activities, the System Integrator shall obtain signoff from the respective SHOs and Higher officers.
  28. Earthing Recommendations are as follows. DeMT staff should ensure that a separate earth pit is prepared and that the SI fulfils other earthing requirements.
    - Separate earth pit(s) is/are to be prepared by the SI. Earth Pit of size 1 x 1 foot to be built and it should not be greater than 2 inches above the ground level. The pit should be covered with a slab of not less than 1-inch thickness. “UPS Earth Electrode” should be written inside the pit.

- SI to undertake plate earthing through Copper wire with provision of copper plate (300 x 300 x 3 mm) earthing by digging 12' deep hole (4' x 4'). Four Sq mm wire should be used for earth (up to the strip).
  - Proper electrical earthing to maintain earth- neutral voltage less than or equal to 3 volts in the supply to the MCB. This should be checked with a multi-meter by the Nominated district police official/ officer at police Station.
  - All apparatus and equipment transmitting or utilizing power shall be earthed. Copper/G.I. earth strips/wires shall be used unless otherwise indicated
  - Earth Pipe should be at least 5 feet and pipe should be 1 feet below the ground level
  - Connection of earth wire to the earth pipe should be visible
  - Water collecting portion in earth pipe should be tightly fitted
  - Two copper wires of thicker size have to be used to connect strip and the Earth Pipe.
  - Earth bus to the earth pit should be connected with 8 gauge thick copper wire
  - Components for Earthing
    - ✓ Earth Bus – 1 no
    - ✓ Earth pipe with funnel – 1 no
    - ✓ Earth pit with lid – 1 no
    - ✓ Copper wire to connect earth pipe & Earth bus
    - ✓ Necessary earthing chemicals such as Charcoal, gravel, sand, salt, etc
    - ✓ 8 Gauge CU wire from earth bus to earth pipe. The connection should be connected by appropriate nut, bolt & washers
    - ✓ Earth pit as a whole should not be more than 2 inches above the ground
    - ✓ This pit necessarily be covered by a lid with at least 1 inch thickness
    - ✓ The earth pipe should be min of 50 Sq mm diameter
    - ✓ The earth pipe should be tightly fitted water collecting funnel
29. Officer-in-charge at Police Station/DeMT should give a signoff once the site preparation work is completed as per requirements laid out in the RFP document and after inspection by the Mobile District technical team who should tour all the locations and certify that it is as per the approved model & items at District/State level. A copy of the sign-off document shall also be consolidated at the district & the State level. The consolidated sign-off sheets shall be regularly reviewed by the DeMT for ensuring compliance.

## Annexure A: Sample Site Survey Sheet

A detailed Sample Site Survey table is provided below for reference. The table may be modified/enhanced by the SI on consultation with the Nodal Officer/SPMU.

### 1. Site related Data Sheet(Consolidated)

Site Details							
Sr. No	District	Site(Police Station)	Type(Police Station/Higher Office/Head Quarter/Commissionariate/Range)	PHASE	Site Survey Attempted (Yes/No) (Mention Date if Yes)	Site Identified (Yes/No)	Site available for immediate work
1	Gurgaon	City	Police Station	I	Yes(21.09.2011)	Yes	Yes
2	Gurgaon	sec- 5	Police Station	I	Yes(23.09.2011)	Yes	Yes
3							
4							

### 2. General Site Information

Site Name	Sub div/ District/Range	Language	Building Condition			Distance from Block HQ/Block name	Surveyor's Name	Date
			New	Old	Renovated			
1. Total Man power strength	Sanctioned			Current				
2. Co-located Offices	Yes	No	Names of Offices:					



3. Telecom Provider					
4. CIPA/ CCIS Used	Yes	No	Remarks:		
5. Distance from telephone exchange					
6. Transportation facility to the site	Train	Bus	Taxi/ Car	Auto	2-Wheeler
7. Address Line 1					
8. Address Line 2					
9. City				State	
10. Contact Details	Land Line No(with STD Code):-				
	Fax No(with STD Code):-				

**3. CCTNS Room Details**

1. Total area of the Police Station Campus		
2. Site Layout available (if yes, please attach)	YES	NO

3. Number of rooms at Site	Floor			Number of Rooms		Average Room Size(sq ft)	
	Ground Floor						
	Floor 1						
	Floor 2						
	Floor 3						
4. Address of the Fire Station nearest to the PS (in Km)							
5. Is fire system installed in the station?	Yes		No				
6. Electrical cable from pole to Distribution Board of the site (thickness in mm)							
7. Details of the Computer Room	Room Name	Room Size	Number of windows	Physical access	Condition of the room	Is there seepage in this room	
	Computer Room			EASY RESTRICTED			
8. Water seepage/leakage in a building	Yes ( ) No ( )						
9. Pest control done	Yes ( ) No ( ) Other ( )						
10. Demolition Work required	Yes ( ) No ( )						

#### 4. Site Electrical Details

<b>Site Details</b>	
Existing Voltage Readings (In Volts)	Range in Volts/ Remarks (if there is any voltage fluctuation)

Phase-Neutral	Phase-Earth	Neutral-Earth	
Voltage fluctuation :      YES                      NO			
1. Power outage per day(in Hours)			
2. Is there lightning arrester available		Yes No	
3. Power Supply 3/1 Phase			
4. Distance from Feeder to CCTNS room (Feet)			
5. Main DB Condition - Burnt/ Poor/ Good			
6. Earthing (Yes/No)			
7. Raw power capacity (KW)			
8. UPS location identified (Yes/NO)			

**5. Allocation of Electrical Nodes**

<b>Room No./Name</b>	<b>No of Electrical switch boards</b>	<b>Total number of 15Amps switch/ socket</b>	<b>Total number of 5Amps switch/ socket</b>
Computer Room			
IIC/ OIC			
Office/ Reception 1			
Office/ Reception 2			

**6. Availability of DG Set & UPS/ Any other source of power**

Existing DG Set (Y/N). If Yes, Make & Model/ KVA	Properly Illuminated (Yes/No)	Proper Ventilation (Yes/No)	Existing load on Generator set	DG location identified (Yes/No)
Existing UPS (Y/N). If Yes, Make & Model/ KVA	Properly Illuminated (Yes/No)	Proper Ventilation (Yes/No)	Existing load on UPS	UPS location identified (Yes/No)

**7. Location of solar panel and VSAT equipment**

Site for installation of VSAT (location)	Flat & levelled space/Solid Roof/ Platform available?(Y/N)	If available, Site accessibility (ladder/ staircase)	Whether min space is 7ft X 5ft	Line of Sight clearance (Y/N)	Monkey cage (Y/ N)	Site condition		
						GOOD	AVERAGE	BAD
Site for installation of Solar Panel (location)	Flat & levelled space/Solid Roof/ Platform available?(Y/N)	If available, Site accessibility (ladder/ staircase)	Available Area			Site condition		
						GOOD	AVERAGE	BAD

**8. Tables & Chairs for Systems**

S. No.	Items	Quantity		Make Model and Year		Condition		
		Tables	Chairs			GOOD	AVG	BAD
1	Chair and table available for computers					GOOD	AVG	BAD

**9. Existing IT Infrastructure Details**

S. No.	Items	Quantity	Make Model and Year	Condition
(a)	Systems			
(b)	Printers/ Multifunction Printer			
(c)	Scanners			
(d)	LAN (No of Nodes)			
(e)	Network Equipment (Modem/Switch/Router)			
(g)	Is antivirus installed in systems? If installed, is it working?			

**10. Network Connectivity**

S. No.	Items	Type	Bandwidth	Remarks
(a)	Available Internet connectivity			
(b)	Type of network connectivity proposed (please circle)			
	P2P	VPN0BB	VSAT	

**11. Site LAN Setup details**

Site Details			LAN setup details						PC	Remarks	
Sr. No	District	Site(Police Station)	LAN setup available (Yes/NO)	No of Nodes Available	Switch Available (Y/N)	Switch Status (No. of ports, used, free)			LAN can be retain(Y/N)		No of PCs in the office
1	Gurgaon	City	Yes	5	Y	24	2	22	N	3	Site Ready
2	Gurgaon	sec- 5	Yes	3	Y	24	2	22	N	3	Site is not ready(Room is not available)
3											
4											

**12. Date and Records: Volume of records available at each Police station should be captured for the following records:**

Type of Records	Number of Records in PS (Capture data year-wise)										
	2002	03	04	05	06	07	08	09	10	11	12
(IPF-1)FIR Cases											
(IPF-2)Crime details form											
(IPF-3)Property seizure memo											
(IPF-4)Arrest/ Court surrender memo											
(IPF-5)Final Form											
(IPF-6)Court disposal memo											
(IPF-7)Result of Appeal											
Case Diary											
Modus Operandi Register											

Alphabetical Register												
Crime Index												
History sheet												
Non FIR Cases												
UD Cases												
Malkhana Register												
Data in CIPA												
Data in CCIS												
Man Missing Register												
Photo Albums of Criminals maintained in PS												
Absconder Register												
Gun License Register												
CD Part II												

13. Staff Details: List of all Police personnel according their rank, designation, and role

Name	Age	Rank	Education	IT Basic training (Y/N)	Computer skill (MS Word, Excel, Ppt, previous CIPA/CCIS used)	Extra Qualification in IT

## **Annexure B- Sign off Procedure**

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### **Instructions for Site Preparation**

Officer at Police station/Higher Office level should give a signoff once the site preparation work is completed as per RFP document. Consolidation of this signed document should be considered as base document for mapping progress related to site preparation work at state level.

The Concerned Authority (Nominated police official/ DeMT representative) shall sign all the 3 copies of the sign-off form only after verifying all the items/rows mentioned in the sign off form.

- One Copy of the form shall be retained by the Police Station/ Higher Office.
- One Copy of the signed form shall be given to the SI.
- One Copy (Original) shall be sent to the District SP Office (DPO Office) or the Nodal Officer, whoever applicable.
- One copy of the form shall be sent to SCRB



## Annexure C- Sample Sign off Form

### CCTNS Site Preparation for Police Station/ Higher Office

Name of the Site:

Address of the Site:

(The list below can be customized by the SI in consultation with the SHO/ SPMU)

#	List of Items	Specifications of Equipment as per Contract	Specifications of Equipment Delivered	Date of Installation	Accepted (Yes/No)	Remarks if any
1	Computer Furniture as per the RFP					
2	Provision of Local area network (LAN cables, I/O ports)					
3	Testing and certification of structured cabling at each location and commissioning of the LAN by installing all the network components					
4	Separate earth pit (with the requirements mentioned in the SOP)					
5	Plate Earthing through Copper wire with provision of copper plate (300x300x3mm) earthing by digging 12' deep hole (4'x4')					
6	Proper electrical earthing to maintain earth- neutral voltage less than or equal to 3 Volts					
7	Electric cabling for UPS & generator, changeover switch, circuit breaker etc					
8	Electric wire (5 Amp) – 2 Core + earthing wire (1/18) for computers, switch and peripherals					
9	Dedicated Power Supply with MCB					
10	Provision for 15 Amp input and 15 Amp output of a 2KVA single phase UPS					

11	Distribution Board (DB) with three nos. 5 Amp, 3 pin socket point with switches, indicators and one fuse for each computer system					
12	Distribution Board (DB) with three nos. 5 Amp, 3 pin socket point with switches, indicators and one fuse for network system					
13	Distribution Board (DB) with two nos. 5/15 Amp, 3 pin socket point with switches, indicators and one fuse for printer(s)					
14	Network Rack					