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OFFICE MEMORANDUM

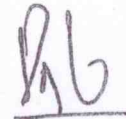**Subject: Guidelines for using Hand Held Devices for the delivery of e-District Services**

The e-District MMP is an e-Governance initiative of significant importance. It aims at electronic delivery of identified high volume citizen centric public services by leveraging the four pillars of e-infrastructure i.e. SWAN, SDCs, SSDGs and CSCs. One of the key aspects of this MMP is business process re-engineering to enable process simplification and reducing service delivery timelines.

2.   The Empowered Committee on the e-District MMP has recommended framing of guidelines for using hand-held mobile devices for delivery of e-District services. In this regard, a Working Group (WG) was constituted under the chairmanship of Joint Secretary (e-Gov). Based on the inputs from the Working Group Committee Members, guideline on Delivery of e-District Services through use of Hand-held Mobile Devices have been prepared, which have been approved by Competent Authority.

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ELECTRONICS INDIA
Billion Needs Million Chips

ELECTRONICS NIKETAN
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3.	The purpose of these Guidelines is to provide guidance / recommendations to the States/UTs on the use of hand-held devices by the designated officials for delivery of services under the e-District project. The guidelines cover various aspects including e-District services that can leverage hand-held devices, software applications, device users and their training needs, typical features / specifications of these devices, procurement and asset management of these devices and funding etc. The guidelines are available at the DeitY website http://deity.gov.in/content/e-district-guidelines-advisories.

4.	You may like to take advantage of these guidelines to improve service delivery under e-District Project

5.	This issues with the approval of Secretary, DeitY.

(Pravin R Chandekar)

Addl. Director

To,

1. Principal Secretary / Secretary IT of all States / UTs
2. Secretary of the Nodal Department implementing e-District Project in all States/UTs

e-District Mission Mode Project

Delivery of eDistrict Services through use of Hand-held Mobile Devices

सत्यमेव जयते

November 2014

Department of Electronics & Information Technology (DeitY)

Ministry of Communications & Information Technology

Government of India

6, CGO Complex, Delhi

Background

In 2012, Uttar Pradesh State's eDistrict team had sought DeitY's approval and financial assistance towards providing hand-held mobile devices to the Lekhpals of the Revenue Department for accessing the eDistrict application and submitting their verification report to the designated authorities for approval. DeitY's Programme Division had put this up for the recommendation of the Empower Committee (EC) on 20th February 2013.

The Empower Committee on eDistrict MMP had directed the following steps:

a) A working group should be constituted with representatives from DeitY and States of Andhra Pradesh, Kerala, Madhya Pradesh and Uttar Pradesh.

b) This working group should examine and provide recommendations for use of hand-held mobile devices for delivery of services under the e-District project.

c) These recommendations can be presented to the Empowered Committee for guidance for further action.

On the basis of the direction of the EC of eDistrict MMP, a Working Group (WG) on Hand-held Devices was constituted under the chairmanship of the Joint Secretary (eGov), DeitY. The constitution of the WG on hand-held devices is given in the table below:

Members	Role
Joint Secretary (eGov), DeitY	Chairman
Secretary IT, Andhra Pradesh	Member
Secretary IT, Kerala	Member
Secretary IT, Madhya Pradesh	Member
Secretary IT, Uttar Pradesh	Member
Director (eGov), DeitY	Member Convener

Two meetings of the Working Group were convened for discussion on the delivery of eDistrict Services by using hand-held devices. The current Guidelines on using Hand-held Devices for delivery of eDistrict services has been prepared based on the discussions and inputs received from the WG Members.

Purpose & Intended Audience

The intended audience for these guidelines is the IT Secretary of the States and the State Designated Agency for the eDistrict.

The purpose of this guideline is to provide guidance / recommendations to the States/UTs on the use of hand-held mobile devices by the designated officials for delivery of services under the e-District project. This guideline covers various aspects like eDistrict services that can leverage hand-held mobile devices, software applications, device users & their training needs, typical features / specifications of these devices, procurement & asset management of these devices, funding etc.

Use of Hand-held Mobile devices for Delivery of eDistrict Services

The "Integrated Framework for Delivery of Services - eDistrict MMP" Guidelines issued by DeitY highlights that while delivering the e-Services, key emphasis has to be provided to the improvement in the service levels. Adoption of well-defined service levels enhances the citizen satisfaction. The States should leverage the e-District project for provisioning infrastructure for delivery of services in a time bound manner (refer section 1.2.2 of the Integrated Framework for Delivery of Services Guideline).

Currently, most of the States / UTs have initiated the business process re-engineering phase wherein the processes of the identified services are being studied and the process improvement areas are being identified. During this re-engineering process, it is imperative to consider the technological interventions that can further streamline the business processes. **It is necessary that the use of hand-held mobile devices by the designated officials should be examined to streamline the business processes leading to reduction in service delivery turn-around time.** The reduction in service delivery time would improve the service levels and thereby enhance citizen satisfaction. Apart from this, it is important that relevant Acts may be identified and amended to consider transactions / approvals done using these hand-held devices as legally binding and valid.

The hand-held mobile devices can be typically used in cases which require:

a) Capturing of field level data by the designated officials working in the field

b) Verification of information by field visit / inspection.

c) Transmission of data in real-time; image / video can also be transmitted.

Some practical instances of usage can be such as:

- Issuance of various certificates which require field level officer (Patwari / Lekhpal etc.) to undertake field verification and submit field report
- Pension schemes require periodic verification about existence of the beneficiary
- Real-time attendance information for social welfare schemes such as MGNREGA, etc.
- Incident information capture by Police officials at the site of incident including capture of images / video recording of statements of witnesses, etc.

Working Group members have suggested following illustrative services which can use hand-held devices:

- Domicile Certificate
- Caste Certificate
- Income Certificate
- Other Certificates issued by Revenue Department

Software Application for Hand-held Mobile devices

The National Rollout Guidelines for eDistrict MMP issued by DeitY clearly specifies that the e-District MMP envisages centralized architecture at the State level with common application software for each of the identified services for all the districts of the State. The application software will be hosted in the State Data Centre (refer section 3.2 of the Guideline). The eDistrict application being developed by the States / UTs are web-based centralized application.

In compliance with the Guidelines, it is essential that the eDistrict software application architecture for hand-held mobile devices **should leverage the existing architecture and the database to provide seamless delivery of services** irrespective of the mode of access chosen by the user.

Software applications that can be made available for use on hand-held mobile devices can be classified as under:

a) Online Applications

The existing web-based eDistrict application can be accessed through the available browser. Alternatively, a web-based application compatible with the mobile device browsers are

developed. In both these scenarios, it would require availability of internet connectivity on the respective hand-held mobile devices to run the application online.

b) Offline Applications

Offline applications are specific applications developed and installed locally on the device along with the required data for performing operations on the application. These do not require guaranteed internet connectivity with centralized application. These applications can be used typically to collect the data and then synchronize with the central database at the end of the day or any pre-configured period of time.

c) Smart Applications

Smart applications are very similar to offline applications. They are locally installed on the device. However, smart applications can update/refresh data on the central database with local data at any point of time whenever network connectivity can be established. The frequency of the data update/refresh depends on the criticality of the data collected.

Users of the Hand-held Mobile devices & their Training Needs

Users of hand-held mobile devices are the designated officials responsible for delivery of services under the e-District project. The users of the hand-held devices need to be identified by the State / UT based on the re-engineered business process finalized by the State / UT.

Once the users have been identified, it is imperative to ascertain and impart training to these users on the usage of the hand-held devices. It is important to educate the users that all transactions / approvals done using these hand-held devices are legally binding and valid under the relevant Acts.

Following types of user trainings are suggested:

a) Awareness / Sensitization Training

An awareness and training programme with respect to usage of hand-held mobile devices with emphasis on general functions of the devices, touchscreen usage, connectivity modes, basics of trouble shooting, installation of OS patches / updates, etc.

b) Functional Training

Hands-on training on the application functionality should be provided to all identified users on specific application modules considering the defined roles of these users. It should also cover data synchronisation / data transfers between hand-held devices and central database, installation of application patches /updates, etc. These trainings should highlight the revised processes being implemented through provisioning of hand-held devices. It should also highlight the improved service levels to these users with the usage of hand-held devices.

c) Technical Training

Apart from the above trainings, it is essential that State's technical staff should be trained on security aspects (physical as well as information security) of the devices and data stored in these devices. The technical team should also be provided in-depth understanding of the applications being developed and deployed on these devices. Since the application developed may be a propriety solution, it is necessary that in-house capabilities are developed to maintain and enhance these applications.

Typical Features / Specifications of Hand-held Mobile Devices

Various types of hand-held mobile devices are available in the market. Following are the typical features / specifications to be considered for hand-held mobile devices.

a) **To use only common language which is of open standards and the software/application developed should seamlessly accept software written in standard languages and is interoperable.**

b) **It may be noted that these are indicative technical features and specifications. Since the users of these hand-held devices would be responsible for various services other than that of eDistrict, States / UTs are advised to derive the technical features and specifications considering their current business requirements emanating from the BPR activity under eDistrict project as well as the business requirements other than eDistrict project.**

S. No	Feature	Minimum Technical Specification*
1.	Display	• 7" Diagonal Size • TFT Capacitive • Touchscreen enabled • Should be readable in day light, in-room lighting conditions • 24 bit true colour
2.	Operating System (OS)	Android with latest version.
3.	Processor	Latest compatible Processor with at least 1.0 GHz
4.	Camera	• Rear Camera – 3 MP • Front Camera – 1 MP
5.	Memory	• 8 GB built-in storage • RAM of 1 GB • Memory Card Support – Upto 32 GB microSD
6.	Battery	• 4000 mAh Li-ion removable • Minimum 6 hours battery backup
7.	AC Power Adapter	Input Voltage Range: 110V-250V, 50 Hz AC power adaptor with necessary cables
8.	Network	• 2G and 3G Support • GPS • Wi-Fi - IEEE 802.11 b/g/n support • Bluetooth – Standard Bluetooth 2.0 or higher
9.	Ports	1 USB (Port A)+ 1 Micro USB+ SIM Slot+1 Micro SD Card Slot+ GPRS
10.	Audio Support	• Stereo Audio built-in speakers • Mono Audio with external 3.5 mm stereo jack for headphone
11.	Sensors	Accelerometer, Gyroscope, Light Sensor
12.	Security	Information Security features in compliance to the State IT Security Policy should be included.

S. No	Feature	Minimum Technical Specification*
13.	Others	Based on the BPR undertaken, features such as Biometric Authentication, support handheld printer terminals for on-spot printing, etc. may be included by the State.

Procurement of Hand-held Mobile Devices

The procurement of hand-held mobile devices may be done as per State / UT procurement policy which may include open competitive bidding, DGS&D, Rate contracts, etc. Availability of service centres, spares, technical support staff, etc. across the State / UT should also be duly considered while procuring these devices. An appropriate inventory stock of these devices should be maintained so as to provide them as replacements to the users in cases of loss / damage /theft. Appropriate 100% comprehensive Warranty and AMC support should be provisioned while procuring the devices.

In case the BPR requirements do not identify requirement of biometric, printer, etc., State Government may also like to evaluate the use of Smart Phone as a replacement of the hand held devices. However this will be dependent on mobile phone policy of the State Government (based on ownership and operational payments made for mobiles to the officials).

While procuring hand-held devices, State / UT may consider usage of these devices for delivery of eDistrict services as well as the delivery of those services other than eDistrict project undertaken by the identified users during field visits. **The States / UTs are advised to derive the technical features and specifications for these devices considering their current business requirements emanating from the BPR activity under eDistrict project as well as the business requirements other than eDistrict project.** It is suggested that the States / UTs may initiate the procurement of these devices after due notification (issuance of Government Order) of the re-engineered processes that includes usage of hand-held mobile devices.

Asset Management

The hand-held devices may be distributed through the district administration stock management process or as per the process defined by the State Government. The identified users of these devices should be made responsible for the safe custody of the devices. Records should be maintained properly tagging these devices to the users along with respective IMEI (International Mobile Equipment Identity) Number. Tracking of these devices may be done with IMEI number. Any loss / damage /theft of the device should be reported to the district administration. These devices should be suitably insured against loss / damage / theft.

State / UT need to develop detailed operating procedures for allocation of devices to the identified users, replacement of devices in case of loss / damage /theft, suitable maintenance of these devices at regular intervals, etc. In case of transfers, the State specific rules need to be followed for the handover of these devices.

Connectivity Service Provider

Geographical coverage of the telecom service provider in the State / UT should be taken into consideration at the time of selection of the connectivity service provider. It is suggested that connectivity plan may be negotiated with the telecom service provider based on the number of users and exclusive plans for government services may be worked out with the service provider.

Way Forward - Funding for Hand-held mobile devices

The current Scheme for National Rollout of eDistrict MMP project **does not provision for the funds to procure hand-held mobile devices**. However, it is suggested that the State may identify some sample eDistrict services that can delivered with improved service levels by appropriate use of hand-held devices. States / UTs may prepare a detailed project report (DPR) and explore options to fund from State's own sources. Alternatively, these proposals may be shared it with DeitY which shall explore options to fund them on pilot basis.

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