Instructions on security, safety and upkeep of LAN/WAN infrastructure

1. **Regular switching on of the AIOs supplied by DG Systems** – Around 22960 desktops have been provided by DG systems of which 18157 have already been domain joined into CBEC’s central system. However, on an average only around 6000-7000 desktops are seen online on a daily basis. While in some cases there may be technical issues related to the BSNL connectivity etc, in most cases AIOs have been kept switched off. It is imperative to switch on the AIOs on a daily basis for the following reasons:
   a. **AIOs mandatorily require daily updates of anti-virus software and Windows Operating System patches.** If the AIOs are kept switched off for a few days then the day it is turned on, it will take all the updates together which may result in system slowness.
   b. **System slowness if updates are not done daily** - If all AIO take update simultaneously over the network, especially after if they have been switched on after a gap, it may choke the network, again leading to slowness. In almost all locations, a local update server has been configured which should be kept in the custody of the Resident Engineer (in the case of non-RE location a responsible person needs to be designated). The RE should be asked to update this designated AIO daily without fail and other AIOs should then be updated from this server. Instructions have already been issued to the REs to facilitate this activity on a done daily.
   c. **Central detection of faults** – If the AIOs are kept switched on, DG systems can pro-actively monitor whether the desktop is working properly and in case of any hardware issue, an alert will come to the central team and the issue can be speedily resolved.

2. **Redistribution of AIO** – Many sites have received equipment in excess of approved Bill of Quantities, since in order to ensure GST readiness DG systems had processed bulk deliveries, especially at bigger sites. In order to optimally use this existing inventory and to prevent equipment (AIO, switches and UPSs which are not required) from damage due to disuse, DG systems has issued instructions for re-distribution of this equipment, as almost 300 sites are pending completion due to this awaited re-distribution. **Many sites are not allowing pick-up of this excess equipment which is causing delays in**
reaching such equipment to sites which need them. It is incumbent on CBEC to prevent wastage of taxpayers’ money and therefore all Chief Commissioners are requested to issue instructions to their respective formations to facilitate pick-up and movement of excess supplied equipment.

3. **Asset accounting for transferred/relocated AIOs** – Due to the dynamic re-organization of formations in relation with GST implementation, AIOs were reached to hub locations and thereafter the formations have been distributing these in their jurisdiction as per requirement. However, many of these assets are not readily traceable now and the information sought by DG systems vide letters DO F.No. 07/Member/CBEC/2017 dated 03.10.2017 and DO F.No. IV(24)/35/2016-Systems dated 09.10.2017 has not been received from most formations. **It is incumbent upon DG systems to account for each and every piece of equipment supplied centrally.** All Chief Commissioners are requested to issue instructions to their respective formations to immediately send complete responses to the above-mentioned letter. In Project Saksham, AIOs have been given location-specific “Hostnames and IP addresses”, which need to change if the location changes, otherwise users may face problems in accessing the central system. Also, once Acceptance has been completed at a site, no redistribution of AIOs should be done. In addition, these issues may get highlighted when this Project is audited by CAG; in last CAG audit of the previous project, strictures had been issued by CAG in relation with missing equipment. The importance of accounting for, upkeep and proper maintenance by the locations of centrally supplied equipment cannot be over-stressed.

4. **Maintenance of UPS batteries and provisioning of backup power by the local formations** – UPSs of 4/8/16/20 kVA have been supplied by DG systems to provide adequate time for a user to save his work and shut down the system in the event of a power failure. If work is to be continued even during power failure then the formation has to provision a properly functioning DG set with an operator and adequate diesel supply, failing which the UPS is at risk of damage. Recent site visits have revealed that UPSs are not housed in proper air-conditioned environment leading to battery damage from humidity, temperature and draining out of batteries because DG set does not take over in time. It has been found that 56 UPSs are damaged due to fire/rodents, 23 are not traceable and 45 are in disconnected condition which means that they are unusable due to deep discharge of batteries.

The UPS batteries also suffer damage if they continue to be charged all the time in locations where power is not a problem. In such locations, it is important to switch off the power supply for a few minutes on a periodic basis.

**ACTION:** Chief Commissioners are requested to issue instructions to respective formations to ensure the following:

(a) UPS should be housed in proper air-conditioned environment which is dust free and has humidity and temperature control.
(b) Wherever there are long power outages, DG Set of adequate capacity with operator and fuel should be provisioned to ensure immediate take over in the event of power failure to prevent damage to the UPS.

c) Wherever there are no power outages for long periods, the main power supply can be switched off for a few minutes on a periodic basis (monthly or quarterly) to prevent damage from over charging of batteries.

5. **Maintaining basic hygiene for centrally supplied equipment** - Recent site visit shave revealed that even basic hygiene is not being maintained at locations. Pest control is not being done, regular vacuuming/dusting is not done, unused and old waste materials are lying around causing a fire hazard. The Chief ACTION: Commissioners are requested to issue instructions to respective formations to ensure the following:

(a) Immediate removal of waste material and old/unused equipment to prevent fire hazard in UPS and Computer Rooms

(b) Hand held fire extinguishers of requisite capacity be provisioned and kept handy where UPS is housed

(c) Regular vacuuming of the facility

(d) Regular pest control

6. **Ensuring Physical and Cyber security at locations** -

(a) **Physical Security** - It is found that in most formations, no guards have been placed at the entrance of the UPS and Computer rooms, no entry/exit register s is maintained to prevent the entry of unauthorized personnel in these areas. This has to be rectified on an immediate basis.

(b) **Cyber Security** - Recent cases have come to light where stand-alone desktops independently procured by locations themselves have been connected to the internet without authorized Operating System or Anti-virus software, resulting in a compromise of that desktop and data pilferage from the files stored on that desktop. In many formations, uncontrolled and unsecured Wireless access has been enabled on these desktops, again leading to compromise of that system. In addition, malware and spyware, etc have been found on such desktops, possibly from use of sites such as Torrent and other gaming sites, etc. While DG Systems is doing all that it can to ensure the security of central LAN and connected equipment, the site also has to ensure that they adhere to principles of cyber security even in respect of stand-alone PCs, laptops, wireless modems/routers, procured independently by them since there is a marked increase in the number of cyberattacks on country's critical infrastructure from malicious sources/hostile foreign players, etc. A separate advisory is being issued in this regard.

The Chief Commissioners are requested to issue instructions to respective formations to ensure physical and cyber security of not only the centrally
supplied LAN/WAN, but even the locally or independently procured IT equipment.

7. **WAN connectivity issues (BSNL)**- DG Systems has placed orders with BSNL for providing MPLS WAN connectivity to locations where 5 or more AIOs have been supplied. While we are constantly in touch with BSNL to expedite the same, it is imperative to ensure that the interim arrangements made by local formations like VPN over Broadband/Internet are kept in place by ensuring timely payment to the concerned Service Providers to ensure that work is not interrupted.

8. **Logging of tickets with Saksham Seva helpdesk**- Given the large number of sites covered by LAN and WAN, it is not possible to track issues unless tickets are logged with Saksham Seva helpdesk. DG Systems is taking active steps to improve user experience at Saksham Seva; this is the only way to enable officers of DG Systems to monitor and track user issues to satisfactory closure. Therefore, whenever any issue is faced at the sites, a ticket should be mandatorily logged with Saksham Seva.

Yours Sincerely
(S.K. Panda)

All Chief Commissioners of GST