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REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF PUBLIC WORKS AND HIGHWAYS  
OFFICE OF THE SECRETARY  
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DEPARTMENT ORDER )  
NO. 248 )  
Series of 2002 )  
9-16-02

SUBJECT: Responsibilities of Central,  
Regional and District Offices  
in the Implementation of the  
Communication Network

In connection with the implementation of the Department Wide Area Network to integrate Central, Regional and District Offices, the use of the communication system should be cost effective and supportive to the objectives of the Department.

Section 1. Definition of Terms – For the purposes of this Department Order, the following terms shall mean as defined below:

- A. Structured cabling – medium of data communication such as, but not limited to, fiber optic cables, unshielded twisted pairs, conduits, connectors and walls jacks
- B. Network equipment – devices used in computer network such as, but not limited to, servers, hubs, routers, automatic voltage regulator, and uninterrupted power supply, computers and other peripherals
- C. Call Accounting – the system of monitoring the outgoing calls
- D. Server – a computer that provides services to the network
- E. Network Communication – transfer of information among interconnected computers
- F. *Genset – generator set for power supply in case of power interruption*
- G. *PBX - Private Access Branch Exchange – equipment which facilitates the voice communication network*

Section 2. Scope – This Department Order covers the Central Office and all Regional and District Offices that will be provided with Communication Network.

Section 3. Duties and Responsibilities – The following are the duties and responsibilities of:

- A. Regional Director or District Engineer
  - 1. Assign a permanent staff member who shall act as the Regional/District Network Administrator;
  - 2. Assign a telephone operator to answer route calls;
  - 3. Direct and oversee the responsibilities of the Regional/District Network Administrator and the Telephone Operator;
  - 4. Accept, sign delivery receipts, and ensure responsibility and accountability of the network equipment, structure cabling, and other facilities for the network configuration; and,
  - 5. Ensure that this Department Order and Department Order 221, Series of 2000, are followed accordingly.
  
- B. Central/Regional/District Network Administrator
  - 1. Ensure the security of the network equipment, structured cabling and the network room;
  - 2. Administer computer system installation and monitor network operations;
  - 3. *Ensure that the required routine maintenance works on the following equipment are performed:*

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## Electrical

### Genset

- a. *Perform periodic maintenance of Genset every six months. This should include:*
  - *Change oil.*
  - *Change oil filter.*
  - *Drain and change coolant in radiator. Ensure that new coolant has proper amount of anti-corrosions / coolant.*
  - *Tune up Genset.*
    - *Calibrate fuel injectors.*
    - *Check / replace various air filters.*
    - *Check carbon on alternator, if very thin, replace carbon.*
- b. *Perform periodic maintenance of Genset every month. This should include:*
  - *Check battery and battery charger to ensure they properly charged and operating correctly.*
  - *Check all gauges / readings on the control panel of Genset to ensure that they are properly functioning. This includes:*
    - *RPM*
    - *Voltage*
    - *Ammeter*
    - *Water temperature*
    - *Oil gauge*
    - *Voltage of alternator*
    - *Hour meter*
  - *Check electrical conduits and conduit connectors to see if loose or missing. If loose, correct these.*
  - *Check Day Fuel tanks and lines for leaks. If leaking, have these corrected immediately.*
  - *Drain Day tank and water separator if full of water or near full.*
- c. *Check all wiring monthly to ensure that it is secured and it has not been tapped into. If found that it has been tapped into, disconnect them, and take steps to ensure that it doesn't continue to occur.*
- d. *Check oil and water levels at least weekly or more frequently if Genset is running frequently.*
- e. *Ensure that circuit breakers are always on.*

### Automatic Transfer Switch (ATS)

- a. *Ensure that ATS is set to automatic.*
- b. *Test ATS weekly, preferably on Saturday to ensure that it is functioning properly.*
  - *Switch off main electrical circuit breaker in powerhouse. Genset should automatically start. Let Genset run for one (1) hour, then turn main electrical circuit breaker back on, Genset should automatically turn off although there is usually a five-minute delay.*
  - *During the test, ensure that Genset is functioning properly. Ensure that all network equipment has power being properly supplied.*

### Powerhouse

- a. *Ensure that powerhouse remains locked at all times.*
- b. *Always maintain an adequate supply of diesel fuel.*

### Network Room

- a. *The following should be performed on an ongoing basis:*

- *Always lock the network room.*
- *Maintain cleanliness constantly in the network room (all aspects).*
- *Ensure that there is nothing blocking cabinets / equipment so that airflow is proper.*
- *Ensure that all miscellaneous cabling is protected and properly installed.*
- *Ensure that all equipment is properly installed and functioning.*
- *Ensure that electrical and lights are properly functioning.*
- *Ensure that roof has no leaks (this should be done frequently during heavy rains).*
- *Ensure that walls, floor, ceiling, doors have no holes (to keep rodents out).*
- *Maintain proper constant temperature and humidity in network room (should be 23 degrees C).*

#### **Uninterruptible Power Supply (UPS)**

- a. *Test all UPS every month by pulling the power cord.*
- b. *Let UPS run without power for ½ hour to see if properly functioning.*
- c. *If UPS is not functioning properly, immediately plug power back into UPS, and take steps to have UPS repaired immediately.*

#### **Air Conditioning Units**

- a. *Set the temperature at 23 degrees and leave it at that temperature or on window type, set temperature at about half, and fan at medium.*
- b. *Clean the air conditioning units at least monthly (filters, etc).*
- c. *Perform periodic maintenance quarterly on the air conditioning units including power washing (pull air cons out). Check refrigeration, drip pans, and other parts.*

#### **Building Distributors (BDs) and Floor Distributors (FDs)**

- a. *Ensure that BDs and FDs remain locked at all times.*
- b. *Perform inspection weekly of all BDs and FDs.*
  - *Verify everything is working, patched, and secure.*
  - *Ensure that the BDs and FDs are secured and locked.*
  - *Ensure that no items should be stored on top or the side or back of BDs and FDs.*
- c. *Clean all BDs and FDs every month.*
  - *Vacuum the BDs and FDs out.*
  - *Clean the sides and top of the cabinets inside and outside, and all equipment.*
  - *Clean behind (and sides) of BDs and FDs.*
  - *Ensure that all exhaust fans are properly functioning.*
  - *Check for holes in sides, floors, and top. If holes exist, patch or correct them.*
  - *Look for evidence of rodents. If there is evidence, administer pest control. Determine source of rodents and eliminate source.*
- d. *When re-patching cabling inside the BDs and FDs, ensure that the correct color cable is used, and the old cable is removed. Ensure that new cable is tagged, and that the network documentation is updated.*

#### **Cable Patching in BDs and FDs**

- a. *Label properly all patch cables.*
  - *Orange cables should be utilized for data. Cable should be on right side of BD or FD.*

- *Gray cables should be utilized for voice. Cable should be on left side of BD or FD.*
- b. *Ensure that all patch cables are properly installed in an organized manner.*

### **Cabling**

- a. *Ensure that cabling stays secure. Conduct a physical inspection of all cabling every month.*
  - *Ensure that cabling is in conduits / molding and not exposed. Correct if found.*
  - *Cover pull boxes with screw.*
  - *Ensure that conduits are properly connected to pull boxes with a clamp.*
- b. *Require that all offices notify the network administrator before cabling needs to be moved or relocated. Contact Monitoring and Information Service (MIS) when this is needed. Cabling should NEVER be cut.*

### **PBX**

- a. *Ensure call accounting procedures are followed.*
- b. *Test the batteries monthly to ensure they are charged.*
- c. *Quarterly test the PBX using batteries and rectifier.*
- d. *Clean the PBX monthly.*
- e. *Test the power supply monthly to ensure it is working properly.*
- f. *Perform a complete system backup on both PBXs monthly to floppy disk.*
- g. *Generate the system error report weekly.*
- h. *Review the report, and correct all errors.*
- i. *Generate updated phone directory including access permission.*

### **Data**

- a. *Update active directory.*
  - b. *Maintain an accurate manual log of users and access rights.*
  - c. *Maintain an accurate inventory of all equipment.*
  - d. *Maintain trouble logs of all problems. Ensure corrective action is taken. Analyze the logs periodically to determine areas that should be addressed further.*
  - e. *Perform fine-tuning of software / hardware as necessary.*
  - f. *Perform weekly tape backups of all servers.*
  - g. *E-mail – periodically monitor mailbox sizes.*
  - h. *Periodically monitor network traffic.*
4. *Ensure that the standby generator and air conditioning unit are to be used strictly for the network room only;*
  5. *Troubleshoot problems of the network jurisdiction;*
  6. *Administer call accounting on the telephone system;*
  7. *Regional/District Network Administrators to coordinate activities with the Central Office Network Administrators; and,*
  8. *Perform other duties as may be appropriate upon direction and mandate from the MIS.*

## **C. Monitoring and Information Service (MIS)**

1. *Provide rules and regulations for installation of structured cabling subject to construction standards and building codes;*
2. *Oversee that all network equipment and devices are used for business purposes only;*
3. *Supervise, control and approve the transfer of network equipment and restructuring of cables;*
4. *Direct and oversee the Central, Regional and District Network Administrators;*
5. *Mandate rules for proper maintenance of all network equipment; and,*

6. Provide training to Regional and District Network Administrator in each phase of the Communication Network development.

Section 4. Cost – The cost involved in the operations of the communication network that would be shouldered by offices shall include the following:

A. *Regional and District Offices:*

1. *One time installation cost and monthly recurring charges of telephone service;*
2. *Operation and maintenance expenses, which include fuel and oil cost for backup generators;*
3. *Any cost involved in movement or replacement of network equipment and cabling; and,*
4. *Additional network equipment for office expansion.*

B. *Bureaus, Services, Project Management Offices and other Offices:*

1. *Any cost involved in movement or replacement of network equipment and cabling;*
2. *Additional network equipment for office expansion; and,*
3. *Call usage costs for National and International Direct Dialing (NDD/IDD).*

C. *Administrative and Manpower Management Service (AMMS)*

1. *Operation and maintenance expenses, which include fuel and oil cost for back up generator in Central Office.*

Section 5. Training – On-the-job training will be provided to each Regional and District Network Administrators as part of the implementation of the Communication Network. The MIS may provide additional training as the need warrants it.

This Order supersedes *Department Order 135 – Responsibilities of Regional and District Offices in the Implementation of the Communication Network* dated May 02, 2002, and takes effect immediately.

  
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Secretary