

Republic of the Philippines  
Department of Science and Technology  
NATIONAL COMPUTER CENTER  
C.P. Garcia Ave. UP Campus  
Diliman, Quezon City

**NCC MEMORANDUM CIRCULAR NO. 2000-01**

**FOR : ALL HEADS OF THE NATIONAL GOVERNMENT DEPARTMENTS/AGENCIES/BUREAUS, GOVERNMENT OWNED AND CONTROLLED CORPORATIONS, GOVERNMENT FINANCIAL INSTITUTIONS, STATE COLLEGES AND UNIVERSITIES, LOCAL GOVERNMENT UNITS AND COA RESIDENT AUDITORS**

**SUBJECT : PRESCRIBING GUIDELINES FOR PLANNING AND MANAGING THE AGENCY'S I.T. INFRASTRUCTURE FOR CONNECTION TO GOVERNMENT INFORMATION INFRASTRUCTURE THROUGH RP-WEB**

**Section 1. Declaration of Policy.**

Under Article II, Sec. 24 of the 1987 Constitution, 'the State recognizes the vital role of communication and information in nation building'. The need for a national information highway that is capable of electronically networking the entire country was recognized as early as 1972, when by virtue of Presidential Decree No. 1-A, (Integrated Reorganization Act), NCC as an executive agency was retained under the Office of the President and vested it with the function to integrate the electronic data processing (EDP) operations of the government by requiring on-line or offline tie-up of EDP installations (Article II, Chapter I, Part VI, par.2b).

Presidential Decree No. 1480 issued on June 11, 1978 provided for the restructuring of the National Computer Center and vested it, among other things, with the mandate to "formulate policies and prescribe standards on the acquisition and utilization of computers and related devices, data communications, information systems, and manpower development in support of national computerization objectives."

On November 7, 1997, President Fidel V. Ramos issued A.O. No. 332 Directing All Government Agencies and Instrumentalities including Local Government Units to Undertake Electronic Interconnection through the Internet to be known as the RP-Web. NCC was tasked to issue guidelines for implementation of RP-Web.

It is hereby declared the policy of the State to have an integrated government computerization program. There is also a pressing need to coordinate, integrate, modernize, and fast track the implementation of all Information Technology-related projects to achieve the vision of providing better services to the people.

It is the policy of the Government to give equal access to quality information to its citizenry. Information sharing, however, is a complex problem but can be managed by subdividing it into several simpler components. The Government is considered to be an extended enterprise with vast stores of information managed by a network of information islands to which scarce resources are allocated.

While these information islands are given some degree of autonomy on how to link up with RP-Web, policy planning is centrally initiated even as resource acquisition needed for connection is decentralized to agencies and local authorities. The objective is a well-planned, synchronized procurement of RP-Web resources that will produce a connected Government. RP-Web is inspired by the philosophy that if the Government cannot plan the job, it cannot do the job. Thus, the building block approach is adopted for implementation.

There is also a need to coordinate, integrate, modify, and modernize infrastructure policies, programs, and projects, which can speed up implementation as well as enhance planning and usage of computer resources with major emphasis on high quality and cost efficiency.

Under the Special Provision of the RP-Web Support Fund, an amount has been appropriated for subsidies to government offices down to the division level with priority given to the regional and remote offices for the acquisition and upgrading of personal computer workstations, other equipment and accessories, training, and new connections to the Internet. Excluded are government offices whose personal computers have Internet connectivity already. No amount shall be released from this Fund without prior endorsement of the National Computer Center.

Section 61 of the General Provisions of the 2000 General Appropriations Act provides/authorizes the use of savings and/or any available appropriations for MOOE/Capital Outlay for Electronic Connection to Internet without the need for prior request for realignment from DBM. The full text of Sec. 61 is attached as Attachment 1.

On June 14, 2000, President Estrada signed the E-Commerce Law. Section 28 of RA 8792 states: "Within (2) years from the

effectivity of the Act, there shall be installed an electronic online network in accordance with Administrative Order No. 332 and House of Representative Resolution 890, otherwise known as RPWEB, to implement PART IV of this Act to facilitate the open, speedy and efficient electronic online transmission, conveyance and use of electronic data messages or electronic documents amongst all government departments, agencies, bureaus, offices down to the division level and to the regional and provincial offices as practicable as possible, government-owned and controlled corporations, local government units and other public instrumentalities, universities, colleges and other schools, and universal access to the general public. The RPWEB network shall serve as initial platform of government information infrastructure (GII) to facilitate the electronic online transmission and conveyance of government services to evolve and improve by better technologies or kinds of electronic online wide area networks utilizing but not limited to, fiber optic, satellite, wireless and other broadband telecommunication mediums or mode. To facilitate the rapid development of the GII, the Department of Transportation and Communications, National Telecommunications Commission and the National Computer Center are hereby directed to aggressively promote and implement a policy environment and regulatory or non-regulatory framework that shall lead to the substantial reduction of costs of including, but not limited to, leased lines, land, satellite and dial-up telephone access, cheap broadband and wireless accessibility by government departments, agencies, bureaus, offices, government-owned and controlled corporations, local government units, other public instrumentalities and the general public, to include the establishment of a government web site portal and a domestic internet exchange system to facilitate strategic access to government and amongst agencies thereof and the general public and for the speedier flow of locally generated internet traffic within the Philippines".

NCC, guided by these objectives and in the exercise of its mandate under Sections 2a, 2b, 2c, and 2g of P.D. No. 1480 and Section 6 of M.O. No. 237, now issues this Circular to guide agencies connecting to RP-Web.

## **Section 2. Definition of Terms.**

For the purpose of this Circular, selected terms shall, unless the context indicates otherwise, have meanings as listed in Attachment 2.

## **Section 3. Modes of Connection.**

An agency's enterprise-wide network server can be connected to RP-Web through an ISP (either via a leased-line, dial-up connection or wireless (VSAT/Radio) that is registered with the National Telecommunication Commission. For agency offices where there are no ISP point of presence in their locality, the agency must specify the mode of connection desired (wireless, cable, VSAT, etc.). Telecom carriers that offer prepaid card options as part of their subscription plans can be considered for the agency's last-mile' connection. Refer to Attachment 3 for sample Request for Proposal. Refer to Attachments 4-6 for sample connection diagrams. The ISP must be able to deliver at least 38 kbps of committed information rate.

The minimum workstation capability is a 486 machine or equivalent technology loaded with Windows 95 or equivalent technology connected to a server that can connect at least one computer for each key position in an agency's plantilla.

Workstations/computers that fall below the required minimum technology level may still connect to RP-Web via a data host, which is an RP-Web-compliant server acting as data repository for a government application system.

## **Section 4. Infrastructure Components of RP-Web.**

Every Government Agency shall define and identify RP-Web component infrastructure according to the following network categories:

- a. Local Area Network - a computer network usually confined to a single office or building that allows for the sharing of files and other resources.

- a.1 Components:

- a.1.1 Hardware

1. Network server
2. PC workstation
3. Structured cabling (refer to Attachment 7 for sample)
4. Hubs

#### a.1.2 Software

5. Network operating system
6. Client workstation software

The following are the minimum standard requirements for a LAN:

Immediate requirements:

7. offsite mirror;
8. backup/alternate power source (e.g., centralized or localized UPS, battery array, or backup generator);
9. network operating system (e.g., Windows NT, Unix, Linux, etc.);
10. licensed anti-virus network software;
11. structured cabling;
12. minimum operating system - Windows 3.11;
13. minimum hardware - 486 machine;
14. internet server (including proxy servers);
15. access server;
16. file server (e-mail, web, application, database, file transfer, domain name);
17. firewall;
18. human resource development plan;
19. web development plan;
20. secure server room;
21. clean room maintenance plan;
22. parts inventory plan;
23. Y2K management plan (beyond year 2000);

Long-term Requirements:

24. certified network administrator;
25. certified incident reporting team (CIRT);
26. certified emergency response team (CERT)
27. information and communication technologies (ICT) transition plan, to include computer and telephony integration (CTI);
28. WAN integration plan
29. call center development plan; and
30. Public Key Infrastructure

- b. Wide Area Network - a long distance computer network using dedicated phone line and/or satellites to interconnect LANs across large geographic distances of up to thousands of miles apart.

Components:

1. Router
  2. Modem
  3. Account from an ISP
  4. Telephone line
- c. Agency Enterprise-Wide Network - the Agency's LAN/WAN taken collectively, which consists of, but not limited to:
1. Records Management/Document Tracking System/Office Communication/Messaging System
  2. PC servers
  3. routers/switches
  4. printers
  5. document scanners
  6. Internet subscription services
  7. Telephone/leased lines
  8. Linkage to Government Intranet -an agency's electronic network interface to the rest of the Government.
  9. Agency Extranets - networks outside the agency here or abroad, which communicate with or accesses information from the Agency Enterprise-Wide Network.

#### **Section 5. Submission of Network Diagrams.**

**5.1.** All government agencies shall design an enterprise-wide network consisting of hardware, software, telecommunication, application, and databases and shall connect such network to an Internet Service Provider in compliance with A.O. No. 332 (RP-Web). This shall form part of the agency's Information Systems Plan submitted to NCC. The agency shall source funding from the regular budget (General Appropriation Act) using the provision of Electronic Interconnection or from any other agency appropriation earmarked for such purpose.

**5.2.** For agencies that have not yet connected to the Internet, their Heads shall submit the network diagram and list of IT resources to NCC at the start of the year for endorsement to DBM as basis for requesting funds from the RP-Web Support Fund.

NCC stands ready to provide technical assistance to agencies in configuring their RP-Web connection, including web hosting, web address book maintenance, and provision of e-mail addresses on a selective basis.

#### **Section 6. Basic Requirements for Internet Connection**

**6.1.** For areas where there are land lines available:

- a. Modem (Modulator-DEModulator)
- b. Computer - minimum specifications are stated under Section 8 on Minimum Technical Specifications.
- c. Communication Software
- d. PSTN (Public Switching Telephone Network) or Leased Line
- e. ISP Subscription

- f. Internet Utility Software

## 6.2. For areas without telephone lines (wireless internet connection)

- a. Radio modem - 2.4 GHZ line speed; component needed can be provided by IT vendor
- b. Satellite/VSAT - component needed is provided by the telecommunication carrier

## 6.3. Rates and Terms for Internet Connection.

These are the charges that an ISP collects from their subscribers. Various Internet connection subscription plan will be offered to subscribers. The term depends on the plan that a subscriber may choose.

For preliminary reference, the account titles that a subscriber should be aware of are one-time connection fee, monthly subscription fee, membership fee and other hidden charges such as VAT, cost of number of hours used in excess of free hours given to subscriber and on-site technical support fee after installation.

Some ISPs will charge its subscriber for a homepage space used at their server. These charges are applicable to dial-up and dedicated leased line connections.

Account titles are defined as follows:

1. One-time connection fee - this is the hook up fee. It is a one-time Internet connection installation charge.
2. Monthly Subscription Fee - this is the subscriber Internet access monthly fee.
3. Hidden Charges - this includes VAT, charges for number of hours used in excess of free hours given to subscribers, cost of space used as ISP's server for subscriber homepage, on-site technical support charge after the installation/activation, etc.

For Internet users who wish to access via leased line connection, it is necessary to apply a lease line from a local telephone company or telecom carrier.

## Section 7. List of Services Commonly Offered by an ISP.

An ISP normally offers one or more of the following services: Electronic mail, Telnet, File Transfer Protocol (FTP), World Wide Web (WWW), Internet Relay Chat (IRC), Newsgroup web hosting and others. Agency must inquire from ISP if these entail additional costs.

Please refer to Attachment 8 for some of these services.

## Section 8. Minimum Technical Specifications.

The minimum technical specifications for a dial-up or leased line connection are attached as Attachment 9.

## Section 9. Decision Criteria in Choosing an ISP.

1. **Internet Functions/Tools offered** - software applications that the type of Internet Access an ISP provides like SLIP/PPP, UUCP, and/or dedicated lines. Also considered are Internet functions like email, news, WWW, Telnet, FTP, Gopher, IRC, UNIX, Shell, and other value-added services such as global roaming and email to pager that the ISP may offer. Take note of services, which are offered for a fee.
2. **Costs** - the amount that an ISP charges subscribers, such as set-up or one-time hook-up, membership, subscription, and training fees. Check also for any hidden charges like VAT, extra charges for additional server space, cost or rental of a dedicated dial-up modem, etc.
3. **Local Access** - the communication link that affects the chances of getting a busy signal when dialing up an ISP server. The ISP should support a local communications link such as dial-up and leased-line connections.

The modem types and modem speed communications such as 28.8 kbps, 33.3 kbps, 56 kbps, or leased lines that an ISP offers should be specified.

4. **Dial-up connections** - the ISP should provide the total number of telephone lines used for dial-up connections. The number of subscribers dedicated to a telephone line should be determined. The lesser the subscribers per telephone line and the higher the modem speed, the better.
5. **Leased-line connections** - LAN-based or a dedicated individual access.
6. **Bandwidth Capacity** - an ISP facility's international access line, directly/indirectly connected to the US Internet backbone, which must have the capacity to support higher speeds and more users. An ISP with high bandwidth capacity (the widest range of capacity to support the lowest to the highest frequency possible) and a back-up line, in case of a primary link failure, is ideal. The bandwidth capacity must be assessed in relation to the load.
7. **Storage Space** - the host server space that an ISP can give to subscribers for extra file storage and/or for their homepages. Usually, an ISP provides free 2MB up to 5MB of storage space.
8. **Software** - the Internet application software that an ISP provides in accessing its facilities.
9. **Stability** - the number of years in business, management reputation, financial resources, current and planned infrastructure, and size of customer base (whether individual pre-paid or corporate accounts) an ISP has in the industry. The ISP should be able to disclose such information.
10. **Reliability** - the reputation an ISP has in terms of stability and excellent services offered to customers including high bandwidth capacity for fast and easy connection to the Internet. Well-engineered installations and technically equipped personnel are very important considerations. An ISP that has committed to upgrade thresholds, one having defined load ceilings that trigger an upgrade, is recommended.
11. **Systems/Technical Support** - the extent of help that an ISP can provide during and after installation such as system administration, software configuration, technical support, and help desk. Technical support must include a 24-hour-a-day, seven-day-a-week support even to distant regions. Technical competence of support staff is a must.

Important. All pertinent information such as network servers, number of Internet users connected, telecommunications carrier, firewall/gateway servers, nationwide points of presence and interconnection points that could help the evaluator in determining traffic congestion must be made available by the prospective ISP to the agency.

#### **Section 10. RP-Web Content Development.**

Government agencies shall formulate a Plan to generate information content for RP-Web on the network infrastructure in six application categories as follows:

**Category 1.** An electronic messaging/document management facility/a set of productivity tools within the organization either through a single Local Area Network (LAN) or multiple LANs/WANs (intra-agency workgroup collaborative applications);

**Category 2.** An official web site with hyperlinks to web pages regarding organizational units that provide updated basic information on plans, programs, projects or activities. It can also have eCommerce applications (web-based agency specific applications);

**Category 3.** Scattered databases in the organization used for information servicing of user organized using and a data warehousing facility and providing enterprise-wide database access through data mining (departmental applications);

**Category 4.** Applications that automate certain mission-critical business processes used for daily operations;

**Category 5.** Sectoral information systems that cut across agency boundaries and network links with these agency systems that facilitate delivery of frontline services to the public; and

**Category 6.** Executive/decision support systems that access strategic information from various application systems, both at the agency and department levels.

#### **Section 11. Official Agency Web site**

**11.1. Content Management.** Each agency shall set up its own web site to host the agency's official electronic bulletin board and serve the Filipino citizen's information needs. This is pursuant to the Government's policy of "accessibility and

transparency" as enunciated in Executive Order No. 89 dated 18 May 1993 on Directing the Implementation of a Policy of Accessibility and Transparency in Government. It may contain but shall not be limited to the following items:

- a. agency mandate;
- b. policy pronouncements/official statements;
- c. plans/programs/projects/activities;
- d. products/services and related information
- e. foreign-assisted projects;
- f. locally-funded projects;
- g. rules and regulations promulgated;
- h. information holdings and custodian units;
- i. publications;
- j. news and events;
- k. policy forum;
- l. public transaction servicing procedures/flowcharts;
- m. government links;
- n. client help desks;
- o. agency targets/accomplishments;
- p. list of e-commerce applications;
- q. advertisement for forthcoming bidding/procurement activities;
- r. list of vacant positions (required under RA 7041); and
- s. all information contained in the agency's budget proposal documents submitted to Congress.

The web site shall be the main vehicle for public access and transactions with the Government and shall contain interfaces with the agency's web-enabled, frontline eCommerce applications. There shall be an official Internet address based in the agency Records Office with the format records@(agency acronym).gov.ph. The agency's Web Team shall update it daily. Web development guidelines are prescribed in Attachment 10. All agencies must apply for and acquire their own domain names under the gov.ph category. All static web sites must be converted to dynamic web sites on or before December 31, 2001.

Static web sites contain only texts and images and are not transactional (i.e Unable to offer goods and services online). Dynamic web sites are fully interactive and transactional (i.e. users can buy goods and services, systems are scalable as the data gains and data security is ensured).

**11.2. E-Commerce Application.** The Agency's Plan of Action relative to its compliance of Sec. 27 of RA 8792 submitted to DTI shall also be submitted to NCC together with corresponding updates in their Information Systems Strategic/Development Plan for evaluation purposes as required by NCC MC 99-01 dated Nov. 30, 1999.

Any e-commerce application may contain one or a combination of the following functionalities:

1. Downloading of Non-accountable Forms
2. Application for Service Provision
3. Billing for Services Rendered by the Agency
4. Payment for Services Procured by the Agency

5. Service Provision/Information Servicing
6. Customers Relations Management
  - a. After sales support where clients may need help, information, advice or solutions to several things regarding the agency's product/service.
  - b. Support services such as product/service request tracking will keep the client informed of where the product/service request is at the moment anywhere in the world and online client service will connect the querying client to the query-solving professional.
  - c. Delivery of the product/service wherever the client wants it to go. More and more agencies these days rely on outsourcing the delivery system to get the product/service to where it is supposed to be delivered.

**11.3. Web Team Composition.** Each agency must form a Web team to design, administer and regularly update its web site. It will be headed by a Webmaster and assisted by one or more of the following types of personnel:

- a. Web Server Administrator;
- b. Web Developer/Web Programmer;
- c. Graphics Designer;
- d. DBMS Administrator;
- e. Portal Content Manager; and
- f. Marketing Manager.

They shall be responsible for network performance measurement and data traffic management (Web Server Administrator), Overall web team management/Internet Software Utilities Implementation (Webmaster), web page design, development and navigation (Web Developer/Programmer), aesthetics (Graphics Designer), backend file access optimization (DBMS Administrator), content update (Portal Content Manager), and marketing (Marketing Manager).

**11.4. Integration to Government Portal.** An Agency web site must provide hyperlinks to their respective departments, which in turn must be linked, to the web site of the Office of the President. Each Department must set up a Department-wide Task Force that would plan for and rationalize the IT infrastructure requirements to host the Department portal and set the standards to attain a relatively uniform 'look-and-feel' of the agency web sites under them, in terms of user-friendliness of portal navigation features.

#### **11.5. Department Portal Infrastructure Design**

- a. A dual dial-up phone connection from a Portal Server housed at the Central Office to all major local ISPs. Technical arrangements must be made with each ISP such that data requests will be local to either the ISP server or its connected servers and the portal server.
- b. Local server must have an Internet Server capable of high transaction throughput. A dual Pentium III Server or, equivalent technology would be a minimum requirement, as well as hardware peripheral support for multiple modem connections.
- c. A local LAN configuration at the Central Office would be necessary for the administration and update of the Portal Server.

The above guidelines can be applied to all Department portals being integrated into the Government Intranet Portal.

### **Section 12. Development Strategy of Application Systems.**

Using the information system architecture in their respective Information Systems Strategic Plans (ISSPs), agencies shall develop applications through object-oriented software engineering approach that makes use of web-enabled, browser-driven, and graphical-user interfaces over a scalable platform. Furthermore, agencies shall contribute to the RP-Web application hierarchy and information content described in Section 10 as well as other application development standards that shall be disseminated in subsequent NCC circulars.

An organizational unit equipped with one or more servers, workstations, and peripherals therein shall own each application. The number and mode of connection of the servers shall be determined by the complexity of the application, its transaction volume processing requirements, and data security considerations. If there is more than one server, the server configuration must be presented (e.g., multi-tiered architecture, and peer-to-peer connection). All application servers are then networked to form the enterprise-wide application network.

Existing applications developed using earlier technology platforms shall be migrated to RP-Web development standards.

**12.1. Designing Sectoral Information Systems.** Agencies belonging to the various sectoral groupings whenever mandated by law or executive issuance shall include a Plan, as part of their ISSP/ISDP, to link up with their respective sectoral networks for information support of their strategic and mission-critical applications, especially in the delivery of frontline services. Information linkages with other agencies outside of the sector shall also be defined.

Sectoral networks shall be implemented using the IP-based Virtual Private Network (VPN) technology within the Internet infrastructure. Agencies with proprietary networks must gradually migrate to the VPN infrastructure. Each network shall maintain a sector-wide data hub and a Directory of Sectoral Information Holdings to be administered by a Sectoral Data Administrator. The Administrator shall always abide by the policy guidelines of the Sectoral Steering Committee and shall regularly consult the National Computer Center for conformance to Philippine-adopted international standards.

**12.2. Design of Sectoral Networks.** The design of the Sectoral Networks shall be in line with the objectives of the Sectoral Information Systems that an agency will host. Such design shall be governed by the following principles:

- a. The sectoral network must be legally mandated under a law or executive issuance. Aside from electronically connecting agency computers, it should encompass "right of way" policies that would allow access to all the databases of networked agencies, as a method for defining and identifying applications, owners, custodians, and users of databases and applications.
- b. The sectoral information system should be fully supported by all member agencies so that information sharing among them could be institutionalized through a predefined framework.
- c. Client-server applications should be developed gradually by user agencies upon proper coordination and agreement with owners of the databases. Client functions could be developed modularly for better management and integration testing with the main applications.
- d. Access controls should be built into user groups interested in accessing databases to make sure that their privacy and confidentiality are ensured. Adoption of public/private key encryption and decryption technologies, should be incorporated in the systems design.
- e. External public user groups should be encouraged to develop Extranets that could link to the sectoral information system Intranet.
- f. The design of the physical network, to include the sharing of the databases, should reduce, if not eliminate, duplication of data entry and should use appropriate linkages of tables in existing databases. Furthermore, it should promote decentralization of database maintenance to be correspondingly reflected in the scope of system administration responsibilities of each member agency. Without compromise to data access efficiency, information must be stored in its most primitive form, subject to permission of the agency which owns the database. Whenever data standards are existing at the National Statistics and Coordination Board, these should be used to represent the information in coded form (e.g. geographic location codes which have been formulated at NSCB with the assistance of an Inter-agency Technical Working Group).
- g. The choice of the hardware and software platform should adhere to industry standards. The burden of interconnection rests on the agency directly benefiting from the connection. Where such benefits are shared, a reasonable cost-sharing scheme should be adopted and agreed upon instead through a Memorandum of Understanding (MOU). The sectoral information system could be put to operation as a locally funded project with components in each member agency.

**12.3. Migration Strategy.** As part of its ISSP, every government agency shall include a migration strategy using a phased approach that considers both its financial capability and its integrated application development strategy to convert into an Open Systems Architecture.

The United States Institute for Electrical and Electronics Engineers (IEEE) has defined open systems as follows:

A system that implements sufficient open specifications for interfaces, services and supporting formats to enable properly engineered applications software to:

- a. be ported across a wide range of systems (with minimal changes);
- b. interoperate with other applications on local and remote systems; and
- c. interact with users in a style, which facilitates user portability.

The three key words that are universally associated with open systems are portability, interoperability, and scalability.

The portability of software means the ease with which software can be transferred from one brand or type of computer to another.

Interoperable software applications have the ability to mutually use the information that has been exchanged for two or more systems.

The stability of software means the ease with which software can be transferred from a small computer supporting a few users to a large computer supporting many users over a wide area, and vice versa.

### **Section 13. RP-Web Standards.**

RP-Web standards will be set through the various Standard Working Sub-Committees under the Information Technology Standards Committee of the Bureau of Products and Standards (BPS). The sub-committees shall be composed of representatives from the Government, industry associations, academe, service providers, and user communities.

These sub-committees shall formulate standards in application development; network security; hardware/software procurement; data processing management; telecommunication equipment; and hardware/software interface standards on voice, video, text, and data relevant to policies on copyright, international intellectual property treaties, privacy, among other concerns. Philippine standards shall be primarily based on IETF, X/Open, and Federal Information Processing Standards (FIPS), whenever applicable.

All future information technology plans and evaluation criteria for the acquisitions and/or upgrades of RP-Web services and products should include a requirement for conformance to both international and industry open systems standards. The key standards from which conformance should be sought are from the United States National Institute of Standards and Technology (NIST) and X/Open. Standards approved and adopted by the various Standards Working Committees from the above mentioned international standards shall automatically become Philippine National Standards. NCC in coordination with BPS shall regularly promulgate these standards as well as give recognition to de facto international standards.

Where upgrades, services, or products are determined to be comparable in all other selection criteria, those displaying conformance to international and/or industry open systems standards are to be preferred.

It is expected and accepted that development of an open-systems-standards-based environment will be an evolving process over time and dependent on many factors including:

- functional needs of the organization;
- development of international standards;
- availability of standards-compliant products; and
- applicability of standards-compliant products.

In applying this policy, individual agencies should ensure observance of the following guidelines:

1. project initiatives involving standards-based system, including any cost/benefit analysis, must be based on the IS Strategic Plan of an agency, as well as its functional and user requirements in pursuit of corporate goals and objectives; and
2. retrospective conversion of existing information services is not a requirement.

## **Section 14. Procurement of IT Resources**

**14.1. Submission of IT Inventory Reports.** Each agency shall submit a Start of the Year Inventory of IT Resources, and a Proposed Software Acquisition for the Year which shall be the basis for compliance to M.C. No. 115 (year 1995) (Legalization of Software in Government), in accordance with the procedure described in Attachment 11.

Software must be classified as either one of the following: agency-specific, departmental, sectoral or common.

**14.2. Adherence to Standards.** Upon effectivity of this Circular, every government agency shall make its servers/workstations RP-Web-compliant by ensuring that all the hardware, software, and network interfaces necessary to connect to RP-Web using Philippine National Standards are set in place.

NCC shall regularly advise agencies through advisories, of Philippine National Standards to include but not limited to those mentioned in the GISP approved under EO 265 (s.2000).

**14.3. Adherence to Intellectual Property Rights.** Furthermore, all procured IT resources must adhere to Philippine laws on Intellectual Property Rights, particularly RA 8293 and its Implementing Rules and Regulations, as well as all other international agreements or covenants of which the Philippines is a signatory.

Whenever possible, group software licensing of bureaus/offices under a department is encouraged to achieve cost effectiveness. A Software License Manager for agency-specific, departmental and sectoral software must be designated to administer the licenses granted under the Software License Agreement.

**14.4. Man-Machine Ratio.** In order to ensure maximum productivity of the agency knowledge workers, the following man-machine ratios are recommended based on the agency's manpower staffing profile as reflected in DBM's yearly publication on Staffing Summary:

Management (key positions)	1:1
Technical	1:1
Support to Technical	2:1
Administrative	2:1

## **Section 15. Certificate Authority (CA).**

Until a policy shall have been laid down at Information Technology and Electronic Commerce Council (ITECC), every Agency shall set the criteria for selecting a Certificate Authority that shall ensure the trustworthiness and integrity of electronic transactions done through their computer network.

## **Section 16. Incident Response Team (IRT)/Computer Emergency Response Team (CERT).**

Every Agency shall form IRTs and CERTs that shall alert its users on possible virus attacks and threats to network security. This will serve as information and service center for providing anti-virus solutions as well as standard operating procedures for handling information and network security breaches especially in cases that cause stoppage of operations.

It shall be composed of people knowledgeable in network management, 24-hour help-desk operation, and implementing quick solutions to situations calling for immediate attention. For details, please see Attachment 12.

NCC shall issue separate technical standard advisories on this matter.

## **Section 17. Acquisition of Data Carrier Services**

Taking into consideration data traffic volumes coming in and out of an agency's enterprise network, acquisition of data carrier services shall strictly be in accordance with the 5-year Information System Strategic Plan (ISSP) and the yearly Information System Development Plans (ISDPs).

The Agency Network Administrator/s shall be responsible for managing/allocating network resources to all agency/system users within the internal policies set forth in accordance with the RP-Web technical standards. Requests for upgrading of data carrier service capacities to include leased lines must be supported by appropriate utilization reports electronically recorded by network management software from actual network operations. A policy-based network management system to support service level agreements with network users shall be installed by Network Administrator.

### **Section 18. Performance Measurement/Review**

Using qualitative and quantitative measures of accomplishments, NCC shall monitor the implementation of the RP-Web Program as reported by Agency Heads/CIOs, Department Task Forces and Interagency Sectoral IS Planning Heads. An Annual Accomplishment Report shall be prepared by NCC in coordination with DOTC and NTC for the President's perusal and copy furnished to the ITECC.

NCC shall conduct periodic checks of the agency's compliance to Section 28 of RA 8792 to include but not limited to the following:

1. existence of transactional web sites that can handle both business-to business and business-to-consumer transactions and seamless integration into the government portal;
2. fully documented network infrastructure that can handle the bandwidth requirement of internal and external clientele as manifested by reasonable response time;
3. existence of official agency Internet address based in the Records Office
4. official e-mail address for every key position in the agency's organizational structure.

The results of the performance assessment shall be NCC's basis for recommending to DBM, the agency's eligibility to draw from the RP-Web Support Fund. Furthermore, savings from agency operations due to administration efficiencies particularly those for communications must be reported to NCC as part of the annual IT clearance requirements under Sec. 9 of NCC MC 99-02.

### **Section 19. Effectivity.**

This Memorandum Circular shall take effect November 6, 2000.

**RAMON IKE V. SEÑERES**  
Director General