

# ANNEX A-5: EXISTING INFORMATION & COMMUNICATIONS TECHNOLOGY (ICT) INFRASTRUCTURE INVENTORY as of \_\_\_\_\_

AGENCY NAME: DI Caraga - Regional Office  
 Respondent (IS Planner/CIO/MIS Head)<sup>1</sup>: \_\_\_\_\_  
 Position / Désignation : ITDS/IT  
 Division/Section/Unit : SSD  
 Telephone/Fax Number: \_\_\_\_\_  
 Respondent's Email Address: avilincuat@edti.gov.ph

## Objectives:

- To identify the hardware, software, network and other ICT resources being used to manage information by National Government Agencies (NGAs), Government-owned and Controlled Corporations (GOCCs), State Colleges and Universities (SUCs), and Constitutional and Financial Autonomous Group (CFAG);
- To update existing benchmark and standards; and
- To provide inputs to the MITHI Steering Committee in determining the ICT budget requirements of the agency.

## 1. HARDWARE / OTHER ICT EQUIPMENT

### Fill-out Instruction:

- Please count all existing computing devices and peripherals owned or leased by your office that are functioning including those acquired through projects. In case of multi-year contract for leased units, then just write the number of units under the appropriate year when the leased units were acquired. Do not include in succeeding years unless another batch was leased. **Reference year is last year.** Kindly replace "last year" and preceding years by the actual year number. For example, if last year is 2013, then write 2013 under the 1<sup>st</sup> column. For last 2 years, write 2012 and for last 3 years, write 2011.

### 1.1 Number of Computing Devices and Peripherals by Type and by Year Acquired

| TYPES  | TOTAL NUMBER OF FUNCTIONING UNITS BY YEAR ACQUIRED |        |       |        |       |        |                   |
|--|--|--------|-------|--------|-------|--------|-------------------|
|  | 2021   |        | 2020  |        | 2019  |        | More than 3 years |
|  | Owned  | Leased | Owned | Leased | Owned | Leased |                   |
| Mainframe  |  |        |       |        |       |        |                   |
| Servers  |  |        |       |        |       |        |                   |
| Desktop PC   | 11   |        | 2     |        |       |        |                   |
| Laptop / Notebook / Notebook PC                                    | 5  |        | 10    |        |       |        |                   |
| Mobile Phone <sup>2</sup> (include smart phones)                   |  |        |       |        |       |        |                   |
| Tablet PC  | 15   |        |       |        |       |        |                   |
| All-in-One Printer (Multipurpose)                                  | 3  |        | 3     |        |       |        |                   |
| Printer Only (black and white)                                     |  |        |       |        |       |        |                   |
| Digital Camera (Include DSLR, if any)                              | 2  |        |       |        |       |        |                   |
| Wide-format Printer or Plotter                                     |  |        |       |        |       |        |                   |
| Small Scanner (ex. flatbed scanner)                                | 2  |        |       |        |       |        |                   |
| Smart Card Reader  |  |        |       |        |       |        |                   |
| Wide-format Scanner  |  |        |       |        |       |        |                   |
| External Hard Drive  |  |        |       |        |       |        |                   |
| Generator Set  |  |        |       |        |       |        |                   |
| Others, please specify (continue on a separate sheet if necessary) |  |        |       |        |       |        |                   |

<sup>1</sup> In case all three positions are occupied by different persons, then the IS Planner should have priority in answering this survey.

<sup>2</sup> Count only the mobile phones owned or leased by your agency.

## 1.2 Number of Computing Devices and Peripherals by Usage

| TYPES                                      | Operations |          |                                 | General Administration and Support Services Support to Operations <sup>3</sup> | Projects<br>(Not agency-funded) |
|--|------------|----------|---------------------------------|--|---------------------------------|
|  | Employees  | Training | Frontline Services <sup>4</sup> |  |                                 |
| Servers                                    |            |          |                                 |  |                                 |
| Desktop PC                                 | 105        |          |                                 |  |                                 |
| Laptop / Notebook / Netbook PC             | 83         |          |                                 |  |                                 |
| Multi-function printer (print, copy, etc.) | 25         |          |                                 |  |                                 |
| Printer only                               |            |          |                                 |  |                                 |

## 1.3 Number of Servers by Capacity and by Location

| TOTAL CAPACITY OF HDD | LOCATION |            |
|-----------------------|----------|------------|
|                       | IN-HOUSE | CO-LOCATED |
| Above 4 TB            |          |            |
| 2 TB to 4 TB          |          |            |
| Below 2TB             |          |            |

## 2. SOFTWARE, APPLICATION SYSTEMS, INFORMATION SYSTEMS AND DATABASES

### 2.1 Operating Systems

#### 2.1.1 OS for Stand-alone PCs (desktops and laptops)

| OPERATING SYSTEM   | Lifetime License? <sup>5</sup>      | If not, write below the year of expiration |
|--|-------------------------------------|--|
| Older than Windows 7   | <input type="checkbox"/>            |  |
| Windows 7  | <input type="checkbox"/>            |  |
| Windows 8  | <input type="checkbox"/>            |  |
| Windows 10   | <input checked="" type="checkbox"/> |  |
| Windows 11   | <input checked="" type="checkbox"/> |  |
| Linux  | <input type="checkbox"/>            |  |
| Mac OS version 10 and below  | <input type="checkbox"/>            |  |
| Mac OS version 11 and above  | <input type="checkbox"/>            |  |
| Others, please specify (continue on a separate sheet if necessary) | <input type="checkbox"/>            |  |

#### 2.1.2 OS for Workstations (desktops and laptops)

| OPERATING SYSTEM   | Lifetime License?                   | If not, write below the year of expiration |
|--|-------------------------------------|--|
| Older than Windows 7   | <input type="checkbox"/>            |  |
| Windows 7  | <input type="checkbox"/>            |  |
| Windows 8  | <input type="checkbox"/>            |  |
| Windows 10   | <input checked="" type="checkbox"/> |  |
| Windows 11   | <input checked="" type="checkbox"/> |  |
| Solaris  | <input type="checkbox"/>            |  |
| Linux  | <input type="checkbox"/>            |  |
| Mac OS version 10 and below  | <input type="checkbox"/>            |  |
| Mac OS version 11 and above  | <input type="checkbox"/>            |  |
| Others, please specify (continue on a separate sheet if necessary) | <input type="checkbox"/>            |  |

<sup>3</sup> Those used in planning, coordination, internal training, monitoring and evaluation

<sup>4</sup> Those used by external clients

<sup>5</sup> Mark if yes. Examples are OEM license (software is already installed in the hardware) and Enterprise (Perpetual) license, which does not require renewal and is for life long. (source: <http://www.manageengine.com/products/service-desk/help/adminguide/configurations/software/software-license-type.html>)

|  |  |  |
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|--|--|--|

### 2.1.3 OS for Servers

| OPERATING SYSTEM   | Lifetime License?        | If not, write below the year of expiration |
|--|--------------------------|--|
| Windows Server 2008 and below                                      | <input type="checkbox"/> |  |
| Windows Server 2012  | <input type="checkbox"/> |  |
| Windows Server 2016  | <input type="checkbox"/> |  |
| Windows Server 2019  | <input type="checkbox"/> |  |
| Windows Server 2022  | <input type="checkbox"/> |  |
| Solaris  | <input type="checkbox"/> |  |
| Open Solaris   | <input type="checkbox"/> |  |
| OS/2   | <input type="checkbox"/> |  |
| Linux  | <input type="checkbox"/> |  |
| Mac OS X Server  | <input type="checkbox"/> |  |
| Others, please specify (continue on a separate sheet if necessary) | <input type="checkbox"/> |  |

### 2.2 Office Automation Software

| SOFTWARE / APPLICATION PACKAGE                                     | Lifetime License?                   | If not, write below the year of expiration |
|--|-------------------------------------|--|
| MS Office 365  | <input checked="" type="checkbox"/> | (subscription)                             |
| MS Office 2019   | <input checked="" type="checkbox"/> |  |
| MS Office 2016   | <input checked="" type="checkbox"/> |  |
| MS Office 2010   | <input type="checkbox"/>            |  |
| MS Office 2007 and below   | <input type="checkbox"/>            |  |
| MS Visio   | <input type="checkbox"/>            |  |
| MS Project   | <input type="checkbox"/>            |  |
| Open Project   | <input type="checkbox"/>            |  |
| Open Office  | <input type="checkbox"/>            |  |
| Others, please specify (continue on a separate sheet if necessary) | <input type="checkbox"/>            |  |

### 2.3 Operational<sup>6</sup> Oversight / Administrative Systems (please refer to the examples<sup>7</sup> below).

| NAME OF SYSTEM<br>(Please list down the name/s of your administrative system/s) | Own Intellectual Property, Y or N? <sup>8</sup> | DEVELOPMENT PLATFORM<br>(ex. LAMP, .NET, Java) | WORKING ENVIRONMENT <sup>9</sup><br>(Use codes below) | MAINTENANCE COST | USE <sup>10</sup><br>(Pls. write codes only; refer below) |
|---|---|--|---|------------------|---|
| e-FAST  | Y   | (Y11) Y11 2                                    | C   |                  | 1, 3  |
| DTS   | N   |  | W   |                  | 2, 3  |
|   |   |  |   |                  |   |
|   |   |  |   |                  |   |

<sup>6</sup> Include only those currently being used by your office or agency.

<sup>7</sup> Payroll System, 201 File Information and Promotion System, Vehicle Monitoring System, Document Tracking System, Attendance and Leave Monitoring System, Financial Management Information System, Inventory System, Records Management System

<sup>8</sup> Write Y for Yes if your agency has intellectual property right to the system. Write N for No.

<sup>9</sup> WORKING ENVIRONMENT: S - Stand alone; C - Client-Server; W - Web-based

<sup>10</sup> USE: 1 - Public Financial Management; 2 - Citizen Frontline Services; 3 - Ease of Doing Business; 4 - Higher Education; 5 - Basic Education; 6 - Health; 7 - Justice, Peace and Order; 8 - Energy; 9 - Land and Other Geospatial Information; 10 - Disaster and Climate Change Management; 11 - Public Works and Transport; 12 - iGov and ICT Infrastructure; 13 - Transparency and Citizen's Participation; 14 - Citizen Registry; 15 - Others, please specify.

| NAME OF SYSTEM<br>(Please list down the name/s of your administrative system/s) | Own Intellectual Property, Y or N? <sup>8</sup> | DEVELOPMENT PLATFORM<br>(ex. LAMP, .NET, Java) | WORKING ENVIRONMENT <sup>9</sup><br>(Use codes below) | MAINTENANCE COST | USE <sup>10</sup><br>(Pls. write codes only; refer below) |
|---|---|--|---|------------------|---|
| (please continue on a separate sheet if necessary)                              |   |  |   |                  |   |

**2.4 Operational<sup>11</sup> Strategic Information Systems** (please refer to the examples<sup>12</sup> below).

| NAME OF SYSTEM<br>(Please list down the name/s of your strategic system/s) | Own Intellectual Property, Y or N? <sup>13</sup> | DEVELOPMENT PLATFORM<br>(ex. LAMP, .NET, Java ) | WORKING ENVIRONMENT <sup>14</sup><br>(Use codes below) | MAINTENANCE COST | USE <sup>15</sup><br>(Pls. write codes only; refer below) |
|--|--|---|--|------------------|---|
|  |  |   |  |                  |   |
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|  |  |   |  |                  |   |
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|  |  |   |  |                  |   |
| (please continue on a separate sheet if necessary)                         |  |   |  |                  |   |

**2.5 Databases** (please include only existing databases)

| NAME OF DATABASE | Own Intellectual Property, Y or N? | BRIEF DESCRIPTION AND KEY FIELDS <sup>16</sup> | DATABASE MANAGEMENT SOFTWARE <sup>17</sup> USED | MAINTENANCE COST | USE<br>(Pls. write codes only; refer below) |
|------------------|------------------------------------|--|---|------------------|---|
|                  |                                    |  |   |                  |   |
|                  |                                    |  |   |                  |   |
|                  |                                    |  |   |                  |   |
|                  |                                    |  |   |                  |   |
|                  |                                    |  |   |                  |   |

<sup>11</sup> Include only those currently being used by your office or agency.

<sup>12</sup> eCensus, Electronic Filing and Payment System, eTIN, Government e-Procurement System, Automated Customs Operations System, Electronic Customs Clearance Facility, Licensure Examination & Registration Integrated System, Machine Readable Passports and Visas, Philippine Land Registration and Information System, Government Employees Management Information System, e-GSIS, eReal Property Tax System, Business Permit & License System, iRegister, Hospital Operations and Management Information System

<sup>13</sup> Write Y for Yes if your agency has intellectual property right to the database. Write N for No.

<sup>14</sup> **WORKING ENVIRONMENT:** **S** - Stand alone; **C** - Client-Server; **W** - Web-based

<sup>15</sup> **USE:** **1** - Public Financial Management; **2** - Citizen Frontline Services; **3** - Ease of Doing Business; **4** - Higher Education; **5** - Basic Education; **6** - Health; **7** - Justice, Peace and Order; **8** - Energy; **9** - Land and Other Geospatial Information; **10** - Disaster and Climate Change Management; **11** - Public Works and Transport; **12** - iGov and ICT Infrastructure; **13** - Transparency and Citizen's Participation; **14** - Citizen Registry; **15** - Others, please specify.

<sup>16</sup> Briefly describe the purpose or importance of the database .

<sup>17</sup> Examples of DBMS are MS Excel, MS Access, MS SQL Server, MySQL, IBM's DB2, Oracle SQL, Sybase SQL, Informix, FoxPro

|  |  |  |  |  |  |
|--|--|--|--|--|--|
|  |  |  |  |  |  |
| (please continue on a separate sheet if necessary) |  |  |  |  |  |

### 3. NETWORK

- 3.1 Does your agency have a Local Area Network (LAN)? ☒ YES ☐ NO
- 3.2 Does your agency have an Intranet? ☒ YES ☐ NO
- 3.3 If yes, does your agency have a Virtual Private Network (VPN)? ☒ YES ☐ NO
- 3.4 Does your agency have a Wide Area Network (WAN)? ☒ YES ☐ NO
- 3.5 Does your agency have a Private Automatic Branch Exchange (PABX or PBX)? ☐ YES ☐ NO
- 3.6 If yes, what is the PBX set up? ☐ Private ☐ Hosted ☐ VoIP PBX or IP-PBX ☐ Hosted IP
- 3.7 Is your agency connected to the Internet? ☒ YES ☐ NO
- 3.8 What is/are your agency's mode/s of access to the Internet? (Check all items that are applicable)
- ☐ Fiber ☒ DSL ☐ Hotspot (4g/5g)
- ☐ Leased line ☐ Mobile phone (4g/5g) ☐ Satellite
- ☐ WiFi ☐ Others, please specify: \_\_\_\_\_
- 3.9 Who is (are) your Internet Service Provider(s)? If more than one, please state who is the primary and who is the secondary provider? PLDT and 50-100 Mbps (indicate speed of each)
- 3.10 What is the combined internet bandwidth (voice and data)? 100 Mbps
- 3.11 How many employees have access to the Internet in the office? 105
- 3.12 How many employees have their own official e-mail address? 105
- 3.13 Does your agency have a web site? ☒ YES ☐ NO
- 3.14 If YES, what is the URL of your agency's web site? http://www.dti.gov.ph

### 4. SECURITY, DISASTER RECOVERY & BACK-UP

- 4.1 Does your agency have a protection scheme for your ICT resources? ☒ YES ☐ NO
- 4.2 If YES, what is/are the measure/s being used by your office? (Check all applicable)
- ☐ Security Policy / Guideline ☐ Disaster Recovery Plan
- ☒ Back-up power unit (e.g. UPS, Generator) ☐ Digital signatures
- ☐ Encryption ☐ Off-site back-up
- ☐ Hardware firewall ☐ Physically restricted access to critical ICT equipment
- ☒ Software firewall ☐ Secure servers
- ☐ Subscription to a security service (e.g. anti-virus software, intrusion alert) ☐ Storage of back-up media in localities other than the operating environment
- ☐ Regular ICT security training of employees ☐ Others, please specify \_\_\_\_\_

### 5. DATA ARCHIVING

- 5.1 Does your agency have a data archiving system? ☒ YES ☐ NO
- 5.2 If yes, what type of data archiving system does your agency use?
- ☐ Manual ☐ Electronic ☒ Both/Combination
- 5.3 If electronic data archiving is being utilized, what is the mode?
- ☒ Conventional ☒ Cloud
- 5.4 If conventional mode, what is the medium of storage of the archived data?
- ☐ Optical disks (e.g. CD-Rom, DVD) ☒ Hard Disk
- ☐ Tape ☒ External Hard Drive
- ☐ Microfiche ☐ Diskette
- ☐ Others, please specify \_\_\_\_\_

5.5 What information is archived by your agency electronically? (Check all items that are applicable)

- ☐ Publications (Annual Report, Statistical Report, etc.) 
 ☐ Letters, memorandum orders, communications, etc.  
☐ Audio-visual recordings 
 ☐ Unprocessed/Raw Data  
☐ Maps 
 ☐ Photographs  
☐ Public documents (civil registration forms, passports, land titles, etc.) 
 ☐ Others, please specify \_\_\_\_\_

## 6. SPECIAL SOLUTIONS AND OTHER SERVICES

| SPECIAL SOLUTIONS PACKAGE                   | USE <sup>18</sup><br>(Pls. write codes only; refer below) | MAINTENANCE COST |
|---|---|------------------|
| Geographic Information System               |   |                  |
| Automated Fingerprint Identification System |   |                  |
| Cloud Computing                             |   |                  |
| CCTV System                                 |   |                  |
| Others, please specify                      |   |                  |

## 7. DATA CENTER

- 7.1 Does your agency have a data center? ☐ YES ☐ NO  
 7.2 If yes, how many sites? \_\_\_\_\_  
 7.3 Please check applicable maintenance set-up: ☐ In-house ☐ Outsourced  
 7.4 Does it have a back-up site? ☐ YES ☐ NO

## 8. ICT PROJECTS

### 8.1 Details of Ongoing ICT Projects

| PROJECT NAME <sup>19</sup> | DESCRIPTION | PERIOD<br>(in mm/dd/yyyy) |             | COST <sup>20</sup><br>(in pesos) | DEVELOPMENT<br>STRATEGY <sup>21</sup><br>(Please write<br>codes only; refer<br>below) | STATUS <sup>22</sup><br>(Please write<br>codes only;<br>refer below) | USE <sup>23</sup><br>(Pls. write<br>codes only;<br>refer below) |
|----------------------------|-------------|---------------------------|-------------|----------------------------------|---|--|---|
|                            |             | Start<br>Date             | End<br>Date |                                  |   |  |   |
|                            |             |                           |             |                                  |   |  |   |
|                            |             |                           |             |                                  |   |  |   |
|                            |             |                           |             |                                  |   |  |   |
|                            |             |                           |             |                                  |   |  |   |
|                            |             |                           |             |                                  |   |  |   |
|                            |             |                           |             |                                  |   |  |   |
|                            |             |                           |             |                                  |   |  |   |
|                            |             |                           |             |                                  |   |  |   |
|                            |             |                           |             |                                  |   |  |   |

### 8.2 Issues Encountered in the Implementation of ICT Projects

<sup>18</sup> **USE:** 1 – Public Financial Management; 2 – Citizen Frontline Services; 3 – Ease of Doing Business; 4 – Higher Education; 5 – Basic Education; 6 – Health; 7 – Justice, Peace and Order; 8 – Energy; 9 – Land and Other Geospatial Information; 10 – Disaster and Climate Change Management; 11 – Public Works and Transport; 12 – iGov and ICT Infrastructure; 13 – Transparency and Citizen's Participation; 14 – Citizen Registry; 15 – Others, please specify.

<sup>19</sup> **PROJECT NAME:** In case an ICT project is divided in phases and its budget is given by phases, kindly list each phase as a separate project tagged as <Project Name> Ph. 1, <Project Name> Ph. 2, and so on.

<sup>20</sup> **COST:** For ICT projects and project phases that ended in 2013 or earlier, kindly provide the **actual cost** in pesos and not the proposed cost.

<sup>21</sup> **DEVELOPMENT STRATEGY:** I – In-house; O – Outsourced; C – Combination

<sup>22</sup> **STATUS:** U – Under Development; D – For Deployment; O – Operational

<sup>23</sup> **USE:** 1 – Public Financial Management; 2 – Citizen Frontline Services; 3 – Ease of Doing Business; 4 – Higher Education; 5 – Basic Education; 6 – Health; 7 – Justice, Peace and Order; 8 – Energy; 9 – Land and Other Geospatial Information; 10 – Disaster and Climate Change Management; 11 – Public Works and Transport; 12 – iGov and ICT Infrastructure; 13 – Transparency and Citizen's Participation; 14 – Citizen Registry; 15 – Others, please specify.



- |  |   |
|--|---|
| <input type="checkbox"/> No budget or insufficient budget                                  | <input type="checkbox"/> Delay in the release of projects funds                   |
| <input type="checkbox"/> Opposition or reluctance of stakeholders                          | <input type="checkbox"/> Lack of support by management                            |
| <input type="checkbox"/> Difficulty in recruiting and/or retaining qualified ICT personnel | <input type="checkbox"/> Low level of ICT skills among employees                  |
| <input type="checkbox"/> Unavailability of required bandwidth to support system/s          | <input type="checkbox"/> Not used or seldom used by intended users and/or clients |
| <input type="checkbox"/> Problems in contract management for outsourced services           | <input type="checkbox"/> Problems in procurement                                  |
| <input type="checkbox"/> Others, please specify _____                                      |   |

Please send accomplished questionnaire to:

**MEDIUM-TERM INFORMATION AND COMMUNICATION TECHNOLOGY HARMONIZATION INITIATIVE  
(MITHI)**

Department of Information and Communications Technology (DICT)  
Carlos P. Garcia Ave., UP Diliman, Quezon City 1101  
or email soft copy to [secretariat@mithi.gov.ph](mailto:secretariat@mithi.gov.ph)

You may download the form at <http://www.icto.dost.gov.ph>. Call 920-7421 or 920-01-01 loc. 3912 for assistance.

**Thank you for participating in the MITHI ICT Resources Inventory**

### Definition of Terms:

**Archiving** in general is a process that will ensure that information is preserved against technical obsolescence and physical damage. It will also help conserve very expensive resources and ensure that the research potential of the information is fully exploited. In the Philippine Statistical System (PSS), the adoption of archiving measures has been identified by the NSCB through Resolution No. 11 (s. 1997) as a key policy to ensure the preservation, systematic storage and retrieval of statistical data including records on their methodology, concepts and other metadata.<sup>24</sup>

**Automated Fingerprint Identification System (AFIS)** is a biometric identification (ID) methodology that uses digital imaging technology to obtain, store, and analyze fingerprint data.<sup>25</sup>

**Cloud computing** is the use of computing resources (hardware and software) that are delivered as a service over a network (typically the Internet).<sup>26</sup>

**Co-located** is an arrangement wherein a space is provided for a customer's telecommunications equipment on the service provider's premises.<sup>27</sup>

**Computing devices** include mainframes, minicomputers and microcomputers i.e. desktop personal computers (PCs), laptops PCs including notebooks and netbooks, and handheld devices like mobile phones including smart phones, Personal Digital Assistants (PDAs), palmtops, tablets and multimedia players.

**Data Center** is a centralized repository, either physical or virtual, for the storage, management, and dissemination of data and information organized around a particular body of knowledge or pertaining to a particular business.<sup>28</sup>

**Desktop PC** is a PC that is not designed for portability and is expected to be set up in a permanent location.<sup>29</sup>

**Digital signature** is an authentication code created with a sender's secret key and can be verified by a recipient using the sender's public key.<sup>30</sup>

**External hard drive** is a hard drive that sits outside the main computer tower in its own enclosure. It allows the user to back up or store important information separate from the main internal hard drive, which could become compromised, damaged or corrupted.<sup>31</sup>

**Firewall** is a hardware, software or a combination of the two protecting a computer network from unauthorized access.

<sup>24</sup> ISSP Template Revised 2003 iib

<sup>25</sup> <http://searchsecurity.techtarget.com/definition/Automated-Fingerprint-Identification-System>

<sup>26</sup> [http://en.wikipedia.org/wiki/Cloud\\_computing](http://en.wikipedia.org/wiki/Cloud_computing)

<sup>27</sup> <http://searchsoa.techtarget.com/definition/collocation>

<sup>28</sup> <http://searchdatacenter.techtarget.com/definition/data-center>

<sup>29</sup> <http://computer.howstuffworks.com/10-types-of-computers.htm#page=2>

<sup>30</sup> [http://linux.about.com/cs/linux101/g/digital\\_signatu.htm?terms=Digital+signature](http://linux.about.com/cs/linux101/g/digital_signatu.htm?terms=Digital+signature)

<sup>31</sup> <http://www.wisegeek.com/what-is-an-external-hard-drive.htm>

**Geographic Information System (GIS)** is a system of hardware and software used for storage, retrieval, mapping, and analysis of geographic data.<sup>32</sup>

**Intranet** is "a private network that is contained within an enterprise. It may consist of many inter-linked LANs. The main purpose of an intranet is to share company information and computing resources among employees".<sup>33</sup>

**Laptop**, also called a **notebook**, is a portable PC that integrates the display, keyboard, a pointing device or trackball, processor, memory and hard drive all in a battery-operated package slightly larger than an average hardcover book.<sup>34</sup>

**Local Area Network (LAN)** is "a group of computers and associated devices that share a common communications line or wireless link and typically share the resources of a single processor or server within a small geographic area (for example, within an office building)".<sup>35</sup>

**Magnetic card reader** is a device used to read magnetic stripe cards, such as credit cards.<sup>36</sup>

**Mainframe** is an ultra high-performance computer made for high-volume, processor-intensive computing.<sup>37</sup>

**MICR reader** is a device that can recognize human readable characters printed on documents such as cheques using a special magnetic ink. MICR stands for Magnetic Ink Character Recognition.<sup>38</sup>

**Microfiche** is a sheet of microfilm (a film bearing a photographic record on a reduced scale of printed or other graphic matter) containing rows of microimages of pages of printed matters.<sup>39</sup>

**Mobile phone** is a handheld or wearable device that may not only have call and short messaging service (SMS) functions but may be integrated with common computer applications (email, database, multimedia, calendar/scheduler).

**Multimedia player** combine the functions of a PDA with multimedia features, such as a digital camera, an MP3 player and a video player.<sup>40</sup> This does not include digital voice recorders that only play and record audio files.

**Office automation software** are ready-made or in-house developed software packages that support clerical and other common office tasks.

**Original equipment manufacturer (OEM) license** covers software for stand-alone desktop PCs and laptops and MUST stay bundled with the computer system and NOT distributed as a separate (or stand-alone) product. This software will be identified or labeled "For Distribution Only With New Computer Hardware."<sup>41</sup>

**Outsourcing** is an arrangement in which one company provides services for another company that could also be or usually have been provided in-house.

**Oversight or administrative systems** are those application software that support development planning, fiscal and financial management and operations, auditing, personnel administration, and assets and supplies management.

**PABX** stands for private automatic branch exchange and is a telephone switching system used within a business or organization. It works by interconnecting telephone extensions to each other and to the outside public telephone network.<sup>42</sup>

**Palmtop**, more commonly known as **Personal Digital Assistant (PDA)**, is a tightly integrated computer that often uses flash memory instead of a hard drive for storage. This computer usually does not have keyboards but rely on touch screen technology for user input. Palmtops are typically smaller than a paperback novel, very lightweight with a reasonable battery life.<sup>43</sup>

**Server** is a computer that has been optimized to provide services to other computers over a network.<sup>44</sup>

**Smart card reader** is an electronic device that reads smart cards and can be an external device or a built-in feature of a keyboard, PC or laptop.<sup>45</sup>

**Stand-alone PCs** are independent computer units. They are **not** connected to any other PC or to the network and operate independently.

**Strategic information systems** are client-driven application software that support mission-critical operations and provide direct public access to government services.

**Tablet** is a mobile computer, larger than a mobile phone or personal digital assistant, integrated into a flat touch screen and primarily operated by touching the screen rather than using a physical keyboard. It often uses an onscreen virtual keyboard, a passive stylus pen, or a digital pen.<sup>46</sup>

**VOIP** is an acronym for Voice Over Internet Protocol, or in more common terms phone service over the Internet.<sup>47</sup>

<sup>32</sup> <http://www.nwgis.com/gisdefn.htm>

<sup>33</sup> [http://searchwebservices.techtarget.com/sDefinition/0,,sid26\\_gci212377,00.html](http://searchwebservices.techtarget.com/sDefinition/0,,sid26_gci212377,00.html)

<sup>34</sup> <http://computer.howstuffworks.com/10-types-of-computers.htm#page=3>

<sup>35</sup> [http://searchsmallbizit.techtarget.com/sDefinition/0,,sid44\\_gci212495,00.html](http://searchsmallbizit.techtarget.com/sDefinition/0,,sid44_gci212495,00.html)

<sup>36</sup> [http://en.wikipedia.org/wiki/Card\\_reader](http://en.wikipedia.org/wiki/Card_reader)

<sup>37</sup> <http://www.techterms.com/definition/mainframe>

<sup>38</sup> <http://simple.wikipedia.org/wiki/MICR>

<sup>39</sup> <http://www.m-w.com/cgi-bin/dictionary?book=Dictionary&va=microfiche>

<sup>40</sup> <http://electronics.howstuffworks.com/gadgets/travel/pda1.htm>

<sup>41</sup> <http://www.auditnet.org/articles/softwarelicenses.htm#What%20Types>

<sup>42</sup> [http://www.ehow.com/facts\\_7267523\\_definition-pabx.html](http://www.ehow.com/facts_7267523_definition-pabx.html)

<sup>43</sup> <http://computer.howstuffworks.com/10-types-of-computers.htm#page=5>

<sup>44</sup> <http://computer.howstuffworks.com/10-types-of-computers.htm#page=7>

<sup>45</sup> [http://en.wikipedia.org/wiki/Card\\_reader](http://en.wikipedia.org/wiki/Card_reader)

<sup>46</sup> <http://mashable.com/follow/topics/tablets>

<sup>47</sup> <http://www.voip-info.org/wiki/view/What+is+VOIP>



**Web site** is your agency's presence on the Internet environment.

**Wide Area Network** is similar to a Local Area Network (LAN), but unlike LANs, WANs are not limited to a single location.<sup>48</sup>

**Workstations** are categorized as PCs attached to an office network (usually a Local Area Network) to differentiate it from Stand-alone PCs.

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<sup>48</sup> <http://www.techterms.com/definition/wan>