



**15TH NATIONAL
CONVENTION
ON STATISTICS**

03-05 OCTOBER 2022

*Organized by the Philippine Statistical System
Spearheaded by the Philippine Statistics Authority*



Accessing and Securing Data through Data Enclaves

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Innovations in Collection, Dissemination, and
Preservation of Official Statistics
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Introduction

Data enclave, defined

- Is a facility wherein confidential data, such as identifiable information from censuses and surveys and firm-level data are stored and disseminated.
- It is equipped with computers not linked to the internet or an external network from which no information can be downloaded via USB ports, CD, DVD, or any other devices.
- Can be accessed by researchers and data users by accomplishing an application or request form indicating the purpose of the need to acquire the data



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Existing Data Enclave

Current Set Up

Facility is situated in one of the workstations in the Industry Statistics Division managed by a Data Enclave Manager

It has one computer that is used as the data enclave terminal

The security measures involves the set of password and utilizes Kaspersky Antivirus to disable the USB port and hard drives including internet connection

Firm level data are stored in the hard drive of the computer and statistical runs can be done through statistical software Stata and R Language.



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Data Available on the Existing Data Enclave

Census/Survey	Survey/Census Title	Reference Years
Annual Surveys	Annual Survey of Establishments (ASE)*	1996, 1997, 1998
	Annual Survey of Philippine Business and Industry (ASPBI)	2002 (for reference year 2001), 2003, 2005, 2008*, 2009*, 2010, 2013, 2014, 2015, 2016, 2017
Census	Census of Philippine Business and Industry (CPBI)	2000 (for reference year 1991), 2006, 2012

*Note: *- available firm-level data for the Manufacturing sector only*

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Assessment of Existing Data Enclaves

- ✓ Data Enclave Environment
- ✓ Security of Data
- ✓ Facilities and Resources
- ✓ Methods of Accessing Restricted Data
- ✓ Data Storage and Back-up
- ✓ Manpower



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Proposed Data Enclave Center

✓ *Data Enclave Environment*

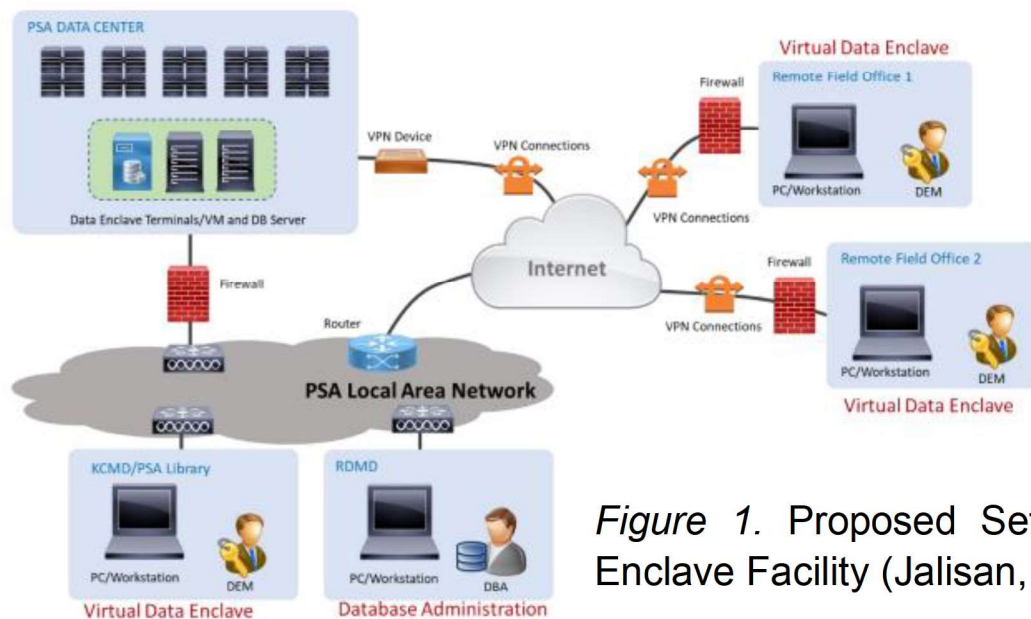


Figure 1. Proposed Setup of the Improved Data Enclave Facility (Jalisan, 2020)

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Proposed Data Enclave Center, *Cont.*

Indicator	Proposed Set Up
<i>Security of Data</i>	<ol style="list-style-type: none">1. All establishment-based data stored in the Data Enclave Center will be secured through the set-up data enclave terminals in the PSA Data Center that are configured and can be accessed using Remote Desktop Application (RDA)2. Data enclaves have no internet connection, USB ports are disabled through its settings in the BIOS, and the data enclave terminals are inaccessible in the Local Area Network (LAN).3. The firm-level data for public use are not stored in any file format but can only be accessed through a database connection using the R software or a database management software.

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Indicator	Proposed Set Up
<i>Methods of Accessing Restricted Data</i>	<ol style="list-style-type: none">1. The data enclaves will be accessible through Virtual Data Enclave or through the LAN on the set-up data enclaves in Central Office or Virtual Private Network (VPN) connection or known as the Virtual Data Enclave (VDE) in the regional field offices.2. Physical access to the data enclave terminals in the PSA-DC will only be given to authorized persons in PSA.
<i>Data Storage and Back-up</i>	<ol style="list-style-type: none">1. All datasets will be stored in a database managed by the Registers and Database Management Division.
<i>Facilities, Resources, Manpower</i>	<ol style="list-style-type: none">1. Equipped with Windows computer and will be installed with geospatial and statistical analysis tools, and documentation support.2. Will be managed by a designated and trained DEM.

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Thank you!



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