

Proposed DNS PMIS Access Control Lists Protocol

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A) Objective of this Protocol:

To act as a practical reference guide for the DNS-HQ and MOHFW to control access to the DNS PMIS for i) data entry, ii) data validation, iii) report design, iv) report generation, v) data back-up and vi) system administration.

B) What is an Access Control List?

A list of staff positions which are approved for access to a software system and/or its data. An Access Control List clarifies who is authorized to access the software system and/or its data for overall system efficiency and security.

C) Proposed ACLs for DNS PMIS:

C.1) Data entry:

i. What is included:

- a. direct data entry to the PMIS from source files at DNS-HQ;
- b. data extraction from record keeping registers and personal files to Data Collection Tool (DCT) is an important work for establishment of web-based DNS PMIS software. A Data Collection Tool (DCT)¹ is developed to extract the data. Data entry is also critical for data management after completing the data extraction work.

ii. What is not included:

- a. Data corrections (e.g. see Data Validation): data updating and validation is important to produce clean and valid data management.

C.2) Report design:

Report design is critical to make the decision makers get their decision perfectly. Report design is to extract report from DNS PMIS software as per requirement of users and they can design the report as required.

C.3) Report generation:

Report generation is also critical to make the decision makers get their decision perfectly. Report generation is to extract report from DNS PMIS software as per requirement of user. Some selected tabular and graphical report will be provided from DNS PMIS software for different levels.

C.4) Data back-up:

Data backup is very important to make the system risk-free and durable in terms of access of uninterrupted data management on wards in the DNS PMIS software. It includes hard and soft copy of data backup of DNS PMIS software.

¹ There are seven forms of DCT. Data will be extracted in different forms such as: **Form-1** will be used for Personal details of employees, **Form-2** will be used for Service details of employees, **Form-3** will be used for Promotion and Lien details of employees, **Form-4** will be used for Awards Information of employees, **Form-5** will be used for Disciplinary Action Information of employees, **Form-6** will be used for ACR Information of employees, **Form-7** will be used for Leave Records of employees.

D) Responsibility Distribution Table (RDT):

Responsibility of data extraction, entry, validation and report generation needs to be distributed among different authority by levels. Responsibility distribution table (RDT) will help to establish the accountability of the DNS PMIS software as well as betterment of data updating onwards. Under this system two (2) RDT tables outline rational authority distribution to access the DNS PMIS software in terms of data entry, validation, report design, report generation, data backup (hard/soft) and system administration. Responsibility of data entry, validation and report generation needs to be distributed among different authority by levels.

Table: RDT-1 (throughout the country by levels)

| Activities | Definition | Levels of authority | | | | | | |
|---------------------------|---|---------------------|------|--------|-----|----------|----------|----------|
| | | MoHFW | DGHS | DNS-HQ | NIs | Tertiary | Division | District |
| Data entry/validation | Data extraction, entry and validation are part of it. Since data management of HR of DNS is very much centralized then data will be managed only by the DNS-HQ. | NA | NA | Yes | NA | NA | NA | NA |
| Report design/generation* | Report design and generation is critical to make the decision makers get their decision perfectly. Some selected tabular and graphical report will be provided from DNS PMIS software for different levels. | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Data backup (hard/soft) | Two types of data archive are needed. One is hard copy of DCT another is soft copy of database whenever it's entered into the DNS PMIS software. | NA | NA | Yes | NA | NA | NA | NA |

* Report generation stratified in a table by levels as per requirements in ANEEX-1.

Table: RDT-2 (within the DNS-HQ)

| Activities | Senior Managers (Director, DD & AD) | Officers level (Statistician /Admin Officer/Nursing Officer) | Upper Division Assistants (UDA) | Office Assistants (OA) Computer Operator |
|--|-------------------------------------|--|---------------------------------|--|
| Data entry/validation | | | | |
| Data extracted by | NA | NA | NA | Assigned OAs by division |
| Data entered by | NA | NA | Assigned UDAs by division | Assigned OAs by division/Computer Operator |
| Data validated by | NA | Statistician/Admin Officer/Nursing Officer | Assigned UDAs by division | NA |
| Report preparation and submission | | | | |
| Report prepared by | NA | Statistician | Assigned UDAs by division | NA |
| Report validated by | AD/DD-Admin | Statistician | NA | NA |
| Report approved by | Director-DNS | NA | NA | NA |
| Report submission to | Director-DNS | NA | NA | NA |

| Activities | Senior Managers (Director, DD & AD) | Officers level (Statistician /Admin Officer/Nursing Officer) | Upper Division Assistants (UDA) | Office Assistants (OA) Computer Operator |
|--------------------------------|---|---|---------------------------------------|---|
| MoHFW | | | | |
| Data backup (soft/hard) | | | | |
| DCTs/PMIS data archived by | NA | Statistician | Assigned UDAs by division | Assigned OAs by division |

E) System Administration:

D.1) What “system administration” is?

System administration is the field of work in which someone manages one or more systems, be they software, hardware, servers or workstations. Its goal is ensuring the systems are running efficiently and effectively. System administration usually managed by a system administrator (sometimes abbreviated as sysadmin) is a person who is responsible for managing a multi-user computing environment, such as a local area network (LAN) and WiFi system. System administrator of DNS PMIS is a person who is responsible for managing the web-based DNS PMIS software.

D.2) Key tasks for the future DNS PMIS “System Administrator”

- Any changes to the structure of the PMIS
- Manage and recommend improvements to this ACL Protocol
- Liaise with Bangladesh Computer Council (BCC) regarding PMIS data security & backup, maintenance as per DNS/MoHFW direction
- Refer to “User Guide for PMIS System Admin”; available from HRH Project

D.3) Current PMIS System Administration support from HRH Project

Maintenance of the software is necessary for its sustainability. A maintenance module is available within the software and this is called “ACL” protocol. Only system administrator will be allowed to execute the maintenance the ACL of DNS PMIS software.

According to letter of Director, DNS (ref. DNS/NES/HRH-CIDA/11/2012-612) dated on 31 July 2013 given permission to IT Specialist of HRH project for controlling the DNS PMIS and website as a system administrator since there is no skilled personnel to take this type of responsibility as system administrator. HRH project will continue at the end of 31 March 2017. After closing the HRH project period DNS-HQ should have a system administrator of DNS PMIS software. HRH project assist to develop a system administrator from DNS-HQ to get the responsibility from IT Specialist of HRH project.

D.4) Current to Future DNS PMIS System Administration:

- **Key milestones:**

| SL# | Subject | Month/Year |
|------------|--|-------------------|
| 1 | Development Data Collection Tool (DCT) completed | Jan/2013 |
| 2 | Initial version of DNS PMIS software completed and resident it at DNS website | July/2013 |
| 3 | Established internet connectivity at DNS-HQ for better use for DNS PMIS software | Nov/2013 |
| 4 | DNS PMIS software finalized and completed | July/2014 |
| 5 | Around 16,000 data entered into the DNS PMIS software completed | Aug/2015 |
| 6 | Hard and soft copy of 16,148 data has handed over to DNS-HQ | Sep/2015 |
| 7 | Completed training different category of staff on DNS PMIS software | Nov/2015 |
| 8 | National Launching of DNS PMIS software | Dec/2015 |
| 9 | Development of Unique Employee ID | Feb/2016 |
| 10 | Development of Access Control List (ACL) protocol | Mar/2016 |

- Transition period (Apr 2016 – Dec 2016)

F) User Classes and Characteristics:

DNS-PMIS software will have following user's groups:

1. Super Admin
2. Super Users
3. Ministry Users
4. Area Admin
5. Facility Admin
6. Individual Users
7. Report Users
8. Transfer Admin
9. PRL Admin
10. Disciplinary Action Admin

ANNEX-1

DNS PMIS report generation stratified by levels: (Auto generated and customized)

| Report generation | Main Contents | Levels of authority | | | | | | |
|---|---|---------------------|------|--------|-----|----------|----------|----------|
| | | MoHFW | DGHS | DNS-HQ | Nis | Tertiary | Division | District |
| Analytical report preparation and submission | This is report preparation as per requirements of higher level authority and its submission by DNS. District levels also prepare and submit the report to DNS in terms of sanctioned, filled and vacant position. | N/A | N/A | Yes | N/A | N/A | N/A | Yes |
| Auto generated reports in DNS PMIS software from some selected area: | By default DNS PMIS software has strong reporting system. This is graphical/tabular form to assist decision makers for better decision making. | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Auto generated reports: | | | | | | | | |
| Report on employee by 1 st joining date (Yearly) | A chart prepared for viewing the recruitment trends of DNS. | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Vacancy report | Vacancy positions along with sanctioned and filled in position report in tabular form. | Yes | N/A | Yes | N/A | N/A | N/A | Yes |
| Educational qualification report | Report by level of education and by level of facilities. | Yes | N/A | Yes | N/A | N/A | N/A | N/A |
| Training report | Training report of employee by level of facilities. | Yes | Yes | Yes | N/A | N/A | N/A | Yes |
| Retirement report | This is tabular by employee retirement report by level of facilities. | Yes | N/A | Yes | N/A | N/A | N/A | N/A |
| Type of post report | Type of post (cadre, development, revenue permanent and temporary) by level of facilities. | Yes | N/A | Yes | N/A | N/A | N/A | N/A |
| Pay scale report | Pay scales by level of facilities. | Yes | N/A | Yes | N/A | N/A | N/A | N/A |
| Educational allowances report | Allowances as per employee and by level of facilities. | N/A | N/A | Yes | N/A | N/A | N/A | N/A |
| Received awards report | Awards by employee and by level of facilities. | N/A | N/A | Yes | N/A | N/A | N/A | N/A |
| Disciplinary action report | Disciplinary action by employee by level of facilities. | N/A | N/A | Yes | N/A | N/A | N/A | N/A |
| Transfer report | Employee transfers by employee and by level of facilities. | N/A | N/A | Yes | N/A | N/A | N/A | Yes |
| Demographic information | | | | | | | | |
| Distribution employee by sex | Distribution of employees by sex in tabular and graphical form. | Yes | Yes | Yes | N/A | N/A | N/A | N/A |

| Report generation | Main Contents | Levels of authority | | | | | | |
|---|---|---------------------|------|--------|-----|----------|----------|----------|
| | | MoHFW | DGHS | DNS-HQ | Nis | Tertiary | Division | District |
| Distribution of employee by marital status | Distribution of employees by marital status in tabular and graphical form. | Yes | Yes | Yes | N/A | N/A | N/A | N/A |
| Distribution of employee by Age group | Distribution of employees by age group in tabular and graphical form. | Yes | Yes | Yes | N/A | N/A | N/A | N/A |
| Number of living child report | Tabular report for number of living children per employee. | N/A | N/A | Yes | N/A | N/A | N/A | N/A |
| Graphical Report: | | | | | | | | |
| Employee distribution graph | Chart presentation of employees by different level of facilities. | Yes | N/A | Yes | N/A | N/A | N/A | N/A |
| Retirement description graph | Chart presentation report for year wise retirement by level of facilities. | Yes | N/A | Yes | N/A | N/A | N/A | N/A |
| GIS | | | | | | | | |
| Sanctioned, filled, vacant posts (geographic) | Actually sanctioned, filled and vacant positions shown in map of Bangladesh by level of facilities. (Partial GIS) | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

Additional details available in:

[http://dns.gov.bd/cmsfiles/files/User's%20guide%20of%20DNS%20PMIS%20software%20\(31%20December%202015\).pdf](http://dns.gov.bd/cmsfiles/files/User's%20guide%20of%20DNS%20PMIS%20software%20(31%20December%202015).pdf)