

DHSS Information Technology Environment Standards

Version: April 2022

A. Introduction

The purpose of this document is to outline the information technology (IT) environment at Delaware Health and Social Services (DHSS). The document is intended to serve as a component of RFPs, RFIs, and contracts for IT procurement. It describes the environment for prospective vendors to determine the degree that their products meet DHSS' environment standards. DHSS has final approval of information technology infrastructure.

DHSS must comply with Delaware's Department of Technology and Information (DTI) policies and standards:

- <http://dti.delaware.gov/information/standards-policies.shtml>

Please note that these standards are living documents and subject to revision.

B. Client Server Environment

The following are currently in use for the client server environment:

- Development software (no new development): Centura Team Developer, PowerBuilder, Borland Delphi
- Change control software: Microsoft Team Foundation Server (TFS).

C. Web Application Environment

DHSS standard platform for new development is browser-based applications utilizing Microsoft Visual Studio .Net.

The DHSS .NET Framework Template must be used for new/custom DHSS Web Applications and can be obtained from DHSS IRM Base Technologies. Note that the template currently supports Web Forms and not Model View Controller (MVC) Framework.

- Application server: Microsoft Internet Information Server (IIS)
- Application framework: Microsoft .NET
- Application development software: Microsoft Visual Studio .NET/C#
- Data Modeling: Microsoft Visio
- Change control software: Microsoft Team Foundation Server (TFS)

DHSS and State Web standards can be found at:

- DHSS .NET Manual: <http://www.state.de.us/dhss/dms/irm/files/dhssdotnetmanual.pdf>
- DHSS Web Policy: <http://www.state.de.us/dhss/admin/files/pm26.pdf> This document should be reviewed. References to OIS in it.
- State Common Look and Feel: <http://dti.delaware.gov/pdfs/pp/WebsiteCLF.pdf>

D. Database Environment

- Client Server DBMS: Microsoft SQLServer
- State DBMS Standard:
<https://webfiles.dti.delaware.gov/pdfs/pp/DatabaseManagementSystems.pdf>

Note: While the State standards allow several database engines. DHSS only support the use of SQLServer on Windows Servers. Use of any other database engine requires the permission of the DHSS Manager of Base Technologies and Director of IRM.

- DHSS Database Naming Standards-
https://www.dhss.delaware.gov/dhss/otsa/irm/files/database_naming_standards.pdf
- The SQLServers for most applications reside in a dedicated DMZ

E. Network Environment

- WAN connectivity: Verizon's Transparent LAN Services (TLS) minimum 100Mbps, Comcast Cable Business, Crown Castle Dark Fiber
- Standard protocols: IPv4, Ethernet, 802.11
- LAN connectivity: Cisco switching
- Storage: Fiber Channel
- Authentication: Microsoft Active directory
- Operating systems: Microsoft Desktop OS, Windows 10 or newer Microsoft Server OS, Server 2019 or newer
- Virtual Software: VMWare
- Server Hardware: Blade
- Citrix Architecture: XenApp, Secure Gateway, Web Interface
- Backup: CommVault
- File Exchange: SFTP, WinSCP, two-factor authentication
- Document Sharing: Windows SharePoint Services (intranet only)
- Imaging: IBM FileNet P8
- Generic Three-Tiered Architecture Diagram: see Figure #1 Is this still required?

F. Desktop Environment

- Application software: Office 365, CrowdStrike, Jolly Giant QWS 3270 Secure, Citrix Client, Adobe Reader Cloud, Microsoft Edge.
- Ad-Hoc Reporting Tools: Crystal Reports, SQLServer Reporting Services
- Printers: Citrix Compatible see:
 - <http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA0-8465ENW.pdf>

G. Voice Environment

- Telephone System Architecture: Avaya S87xx Enterprise IP-Connect
- Telephone Terminals: 2400 Series
- Circuits: PRI digital PSTN connectivity, 911 Centrex (2)
- Voice Mail: Avaya Aura Messaging
- Call Recording: Work Force Optimization
- Call Center: Avaya CMS

- Land and Cellular Carrier: Verizon
- Pager Carrier: American Messaging

H. Security Environment

- E-Mail Encryption: Egress
- Facility Access: Honeywell ProWatch Access Control
- Video Security: Fusion Remote
- Desktop & Laptop Computer Security: Microsoft Bitlocker

FIGURE #1

GENERIC THREE-TIERED ARCHITECTURE DIAGRAM

