

# DHDP Infrastructure

The Platform Minimum Viable Product has been developed, integrating DHDP's technical partners' existing solutions into one. Refer to the "DHDP Functionalities" resource to learn more about Platform functionalities. DHDP continues technological development using end-user feedback, expertise of subject matter experts, and agile methodology to drive continuous platform improvements. By January 2026, from an infrastructure standpoint, DHDP will have achieved or continue working toward:

1. **Compliance with Industry Standards**
2. **Strong Data Encryption & Protection**
  - **End-to-end encryption** (AES-256) for data at rest and TLS 1.2+ for data in transit.
  - **De-identification** techniques to protect sensitive data.
  - **Strict data residency policies** ensuring compliance with provincial and institutional requirements.
3. **Robust Access Controls & Identity Management**
  - **Role-based access control (RBAC) and least privilege principles** to restrict data access.
  - **Multi-factor authentication (MFA)** for user accounts and privileged access.
4. **Continuous Monitoring & Threat Detection (IDPS and SIEM)**
  - 24/7 security monitoring and automated threat detection
5. **Secure Cloud Infrastructure & Data Governance**
  - **DHDP Orchestrator** is hosted on a **highly secure cloud platform** (AWS, Azure) with built-in security controls.
  - **Regular security patching and vulnerability management**
  - **Comprehensive data governance framework** ensuring ethical data usage and regulatory compliance.
6. **Third-Party Risk Management & Secure Integrations**
  - **Vendor security assessments** to ensure third-party tools meet DHDP's security standards.
  - **Secure API integrations** with encryption and authentication mechanisms.
  - **Strict contract requirements** for data security and compliance with external parties.
7. **Regular Security Testing & Incident Response Preparedness**
  - **Incident response plan** with predefined protocols to handle security breaches.
  - **Data backup & disaster recovery** strategies ensuring data integrity and availability.