3.1 INFORMATION/DATA ASSURANCE – DATABASE ADMINISTRATION

Database Administration

Database Administration refers to the design, creation and management of databases used to collect and control devices in an IoT or ICS environment. The IoT security technician must have an understanding of database creation and structures. These technicians are also responsible for securing both the databases and the servers that host them. Modern database management also includes intrusion detection and data access control. The content in this area includes basic database design, system architecture and the protocols used to collect and store IoT data.

Databases may include SQL, Oracle and other commercial products. Other databases may be based on open standard products.
3.1 INFORMATION/DATA ASSURANCE – DATABASE ADMINISTRATION

Existing Course Cross Reference

**Cisco Networking Academy Courses**
- CPA: Programming Essentials in C++
- CCNA Security

**Cisco Partner Courses**
- Security+ (CSSIA.ORG)
- Python Programming for Security Technicians (CSSIA.ORG)
- CISSP (CSSIA.ORG)
- Application and Database Security

Curriculum Resources

**Videos**
- YouTube.com – Configuration Management
- YouTube.com – Cisco Nessus Configuration Management

**Web Links**
- Configuration Management: Best Practices
- White Paper
- SANS Institute InfoSec Reading Room, Secure Configuration Management Demystified
- NIST Special Publication 800-82 Section 6.2

**Textbooks**
- Oracle's Database 12c OU Courses
- Oracle Learning Library
- NIST Special Publication 800-8
- Security Issues in the Database Language SQL
- NIST Special Publication 800-53
- Database Security Controls
- NIST SPECIAL PUBLICATION 800-70 Revision 3 Guidelines for Checklist Users and Developers 12/11/2015

Assessment Resources

**Labs**
- None

**Quizzes/Exams**
- CSSIA CISSP Course
- Security Operations – Chapter Exam

**Quizlet.com**
- Configuration Management Flashcards
- Configuration Planning and Management flashcards