



## **MarineNet Learning Management System (LMS)**

---

### **Capabilities Overview**

Distance Learning Center (DLC)  
Training & Education Command (TECOM)  
United State Marine Corps

## ◀ Background ▶

In 1997, the United States Marine Corps began incorporating Learning Management System (LMS) technology into their distance learning (DL) system. Since that time, the Marine Corps has tested, compared, and evaluated numerous LMS products in an attempt to identify the LMS that best satisfies the Marine Corps' specific DL requirements. The Marine Corps has a widely distributed population with Marines stationed and deployed all around the world. Like all of the military services, Marines and their families are frequently relocated. In addition, Marines are often away from their home stations on temporary duty lasting from several days up to six months or more. The Marine Corps Distance Learning Center (DLC) has the mission to provide distance learning opportunities to for Marine Corps personnel "anytime, anywhere." In support of this mission, the Marine Corps has implemented a distributed learning network known as MarineNet. MarineNet enables the delivery of DL products and services to Marines, Civilian Marines, and eligible family members.

## ◀ Basic Capabilities ▶

The purpose of a LMS is to manage a student's access to DL products and services and to store student on-line training progress and history. The MarineNet LMS incorporates the following core requirements:

- Ability for eligible users to create accounts in LMS
- Ability for users to view the distance learning course catalog
- Ability for users to enroll in web-based, paper-based, and CD-ROM courses
- Ability for users to enroll in a distance learning curriculum
- Ability for users to launch on-line courses
- Ability for users to review their course progress

- Ability for users to review their distance learning transcript history
- Ability for users to take on-line tests and receive credit
- Ability for users to print completion certificates
- Ability to generate pre-formatted and customized reports

When a registered user logs into MarineNet he/she is provided the ability to view all of the courses offered by the system and can *request* enrollment in any distance learning course. Enrollments in DL courses are managed through access levels and course prerequisites. In the MarineNet LMS, users are assigned an access level that governs their ability to enroll in certain Marine Corps DL courses. Active duty and Reserve Marines are the predominant student population and are granted access to all courses in the catalog. Government civilians, military personnel from other services, contractors, and family members are granted lower access levels restricting their enrollment to certain courses. In addition, users accessing the LMS from remote locations may be restricted to enrolling in paper-based or CD-ROM courses.

The MarineNet system takes into account the mobility of Marines and provides the ability for users to interact with the MarineNet system regardless of their location. Finally, MarineNet provides reporting of student progress information to the manpower and personnel system for update in their official records.

## ◀ LMS Development ▶

The current MarineNet LMS is based on the THINQ Learning Solutions LMS (Version 4.x). THINQ was selected through a joint effort with the U.S. Navy in May 2001. In order to support the Marine Corps' unique DL requirements, the THINQ LMS went through a lengthy customization phase.

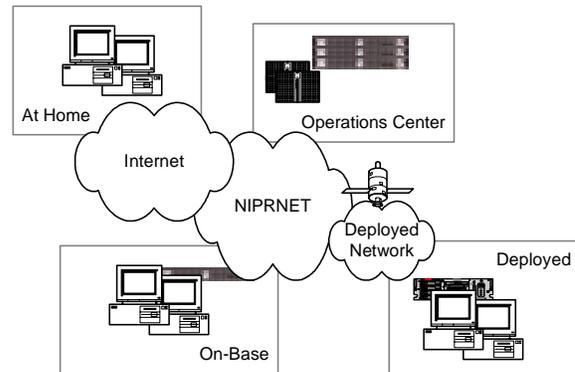
Customizations to the THINQ LMS were primarily focused on integration into the MarineNet network and system architecture. Specifically, customization efforts were required for the integration with the Marine Corps Institute Automated Information System (MCIAIS), the Defense Manpower Data Center (DMDC) databases, and developing a deployable solution. MCIAIS serves as the database-of-record for formal Marine Corps DL training and distance education programs; therefore all enrollments and completions in MCI courses require prior approval by MCIAIS. The authenticity of Department of Defense (DoD) users who attempt to login to the LMS must be validated against the MCIAIS and DMDC databases. The deployable capability required additional customizations to ensure Marines in remote locations (e.g., deployed on-board ship or in the field) can access DL resources and have their progress data updated in the centralized master LMS when conditions permit.

### ◀ Operational Capability ▶

The MarineNet system enables three operational environments:

- The garrison environment,
- The Internet environment, and
- The deployed environment.

The MarineNet LMS has been adapted to operate in each of the three environments while preserving the simplicity of a single system. At this time, the MarineNet system is accessible only from the garrison/on-base environment, however access from the Internet and deployed environments will be available in late 2002. A user on the MarineNet LMS has only one account to manage. That account may be used to access the LMS from any of the three operational environments. To keep training records up-to-date, user account information and progress data is regularly synchronized with all of its subsystems and external systems.



**MarineNet Architecture Overview**

All of the MarineNet operational environments operate as a single enterprise system. Each operational environment provide unique challenges, however, the LMS is configured to ensure that a MarineNet student is provided with a consistent learning environment.

Local caching of student progress information and periodic updating with the centralized system ensures students are presented with the same interface and information even in the deployed environment.