

## Virtual Debit Over the Internet

Mentor Technologies, Inc. needed an innovative solution to allocate and track IT training for users of vLab® Learning System: the first Web-based training tool to provide network engineers with convenient, 24x7 access to real Cisco® hardware and software. Mentor Technologies teamed up with PowerVision to develop a revolutionary debit card system called vCard<sup>SM</sup>, which enables trouble-free access to vLab training and reporting.

*Students use their vCards to debit vLab fees against a pre-paid corporate account. Client organizations access the vCard system to track vLab usage.*

### Why Virtual Debit?

Organizations needed a fast, easy way to distribute vLabs to their network engineers, and still maintain control to track vLab usage. A virtual debit card was the perfect answer. Named vCard, the system allows students to obtain access to labs by debiting a pre-paid corporate account. vCard account holders use the vCard system to allocate credits, track vLab usage, and monitor account activity.

### Internet Solution

A vLab client establishes a vCard Account with Mentor Technologies, obtaining credits toward the purchase of labs for the organization's engineers. The organization accesses the vCard system through the Internet with a secure username and password and then creates sub-accounts for the different divisions within its organization. The sub-accounts are in turn divided further into vCards, allocating a specific number of credits to each. The vCards are distributed via e-mail to the organization's engineers—vLab students—who can log in at any time, from anywhere, to purchase individual labs. vCards can be used in the same way debit cards are used to make purchases from a bank account—instead of using a credit card, students enter their unique vCard number, and the vLab fees are debited from the pre-paid credits remaining. Once purchased, the students can begin their vLab training.

#### Business Area:

- eBusiness

#### Key Technologies:

- Active Server Pages
- Visual Basic
- Microsoft SQL Server

#### PowerVision's Role:

- Development



Figure 1: vCard Account Status. vCard holders use this screen to view information on their vCard status.



**Figure 2: vCard Architecture**

### The Technical Solution

Mentor Technologies' solution utilized a combination of Active Server Pages (ASP), Visual Basic, and Microsoft SQL Server. A Visual Basic library is used to interact with the Microsoft SQL Server database. The ASP generates HTML for user interaction and calls the VB functions to facilitate a fast, harmonious environment. The Visual Basic functions are used to control and manage database transactions and complex business rules. Handling complex functions and database interaction within the DLL allows the application to run efficiently because the Visual Basic code has been compiled. The database stores all user information, and the relationship between accounts for future reference.

### Powerful Reporting

The vCard System allows vCard clients to run a wide variety of reports on their sub-accounts or vCard holders. The vCard client selects the report and how they want to view it. Reports are viewed within the browser using either Java, ActiveX or HTML.

The reports appear within the browser window with the look and feel of Crystal Reports. Online reports using Crystal Reports allow for flexible detailed reports based on vCard activity.

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vCard enables organizations to plan their training budgets and manage credit allocation for information technology training over the Internet. The vCard reporting capability allows for easy access to the status of the training labs. Using vCard, clients can manage vLab training within their organization efficiently and independently.