



# Emory University Goes Virtual to Integrate Identity

Identity is a central organizing thread for most applications, so the tools and methods you choose to approach an identity integration problem can make a huge difference in how big a task the project becomes. The wrong approach can cause ripples into business processes and company operational structures, create many technical challenges, and turn what should be a relatively straightforward project into a lengthy and difficult one. Emory University faced just such an identity integration problem, and found a way to keep it simple...



**T**he task was simple to state, and the requirement clear. Emory University, which has 11,300 students and 2,500 faculty members, wished to integrate users' identities from its University and Healthcare divisions into a PeopleSoft HR web portal useable across both organizations. The technical version of the problem was equally easily described. The University division stored its identity data in a Sun ONE directory, and the Healthcare division stored its identity data using Novell's eDirectory. The PeopleSoft portal had an LDAP

option for both access and authorization permissions, but it required a single directory. So some unified, LDAP accessible, source that integrated the two identity repositories had to be created.

As Emory first approached this problem, it appeared that they needed to put all the identities into one place, so their thoughts turned to technologies that are typically used to put everything in one place such as meta-directory solutions. They quickly saw, however, that with a meta-directory and its need for synchronization, both divisions would have to agree on what

would be exchanged, and they would need to pick one division to manage the result.

## Meta-Solutions Created Meta-Problems

Driven by the technology they were familiar with, they explored whether identities from Healthcare could be synchronized into the University system. While technically the answer was yes, this approach would create the need for the University staff to manage aspects of people's information in Healthcare that they knew nothing about. And there were side effects.

Having the Healthcare division's identities in the University division's systems could unintentionally give Healthcare personnel certain access rights on the University's other systems, which was undesirable.

The more they looked, the worse it got. Every approach they tried was either too complex, too expensive, or too limited. Each one seemed to create an ever larger monolithic centralized directory that carried the weight of every existing application. Their simple concept of integrating identities for an HR portal was creating management and business process problems faster than it was solving them.

## Virtual Directories Are Application-Centric

Thus began Emory's search for a method that would let the solution remain as simple as they saw the problem itself. A solution that would not create undesirable side effects at the business process level, reflect into existing applications' use of the identity systems, or escalate in expense and complexity. A solution that would just let them integrate identities from their existing repositories into the form required by their new application without, as a side effect, doing anything else. They found that solution in the virtual directory, specifically the Directory Federator Express (DFE) from OctetString.

Virtual directory technology allows problems to be approached from an application's viewpoint. A virtual directory synthesizes an identity view in real-time from one or more data sources. In the process data can be selected, formatted, and processed to match the specific task at hand. The creation of that view accesses those existing sources as a user, so the management impact of the new application

is minimal. Because the virtual directory doesn't store identity data, but accesses it from the sources as needed, it doesn't alter the business process of managing those identity repositories.

The difference between a meta-directory and a virtual directory is summarized by Clayton Donley, CTO of OctetString, "Meta-directories are advanced synchronization tools.

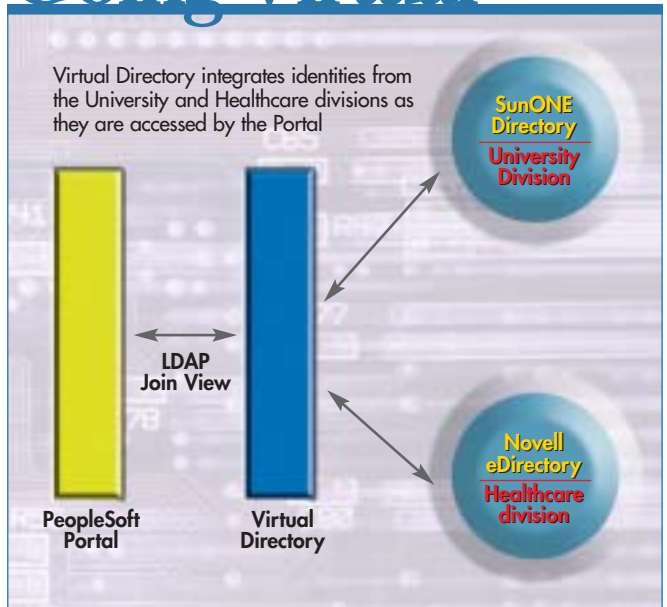
Virtual directories are about giving you real-time access to your existing infrastructure and presenting what you already have to applications in the way they need."

## Building Identity From the Application's View

Virtual directories create a structural transformation in how you approach an identity integration problem. They let you easily (and with minimal impact on existing identity repositories) create what appears to be an application specific directory that crosses management boundaries, one specifically tailored to the needs of an application. With a virtual directory your design is driven by the needs of the new application.

According to Donley, "with a virtual directory, everyone continues to manage what they were managing. The only thing new is the virtual directory, which is application centric. A virtual directory is just an application's view into your infrastructure, not the infrastructure itself. By contrast, a meta-directory creates new direc-

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tories and new infrastructure or at least synchronizes new things into your existing infrastructure which can impact applications and management that you already have in place."

With the traditional directory-centric view, the architectural problem can appear to be trying to come up with one grand schema that everyone likes. But the reality is that applications are being developed by different people and/or teams, and they will not easily standardize on one identity interface. So such "grand schema" directory projects usually bog down, take immense amounts of time and energy, or fail altogether. With a virtual directory, however, new applications can leverage existing identity repositories in the way that each application requires.

## How Rapidly Do Results Occur?

The Emory University case provides results which speak for themselves. From starting the proof-of-concept pilot project, through enrolling both organizations in the approach, to finishing the entire virtu-



al directory identity integration project took less than 90 days. Maybe more important was that the PeopleSoft portal implementation personnel did the entire identity integration project - they didn't require an infrastructure identity project or infrastructure personnel to accomplish the task.

Today the long lines in HR offices have been drastically reduced at enrollment time. The HR staff has seen a tremendous reduction in how many paperwork changes they have to manually input and process on the employees' behalf. Emory officials say the portal can now securely handle as many as 20,000 users, providing online self-service capabilities. This virtual directory identity integration

project went so smoothly that Emory plans to use the technology for other enterprise-class applications that are only able to access a single LDAP directory, reducing licensing fees and implementation costs.

Awareness of the virtual directory should be part of every enterprise's identity tool bag. It provides a non-invasive way to build new identity data presentations for new applications, and those presentations can integrate identity information from multiple sources in multiple formats (not just directories.) A virtual directory is managed much more like a router than a directory. You set it up, configure it, and you let it run. The management of the actual identity

data it is integrating remains essentially unchanged.

Virtual directories allow you to think about identity integration for projects from an application focus, the way projects are really done. Plus, they allow you to do the next incremental project without having to change how existing applications use existing identity stores. The cost of ownership for virtual directories is relatively low, and you get reusability for future applications.

Identity is the organizing principle for network applications, and virtual directories let you build identity the way applications need it quickly and with minimal system and management impact. ■

