



# University of Northern Iowa



*“Real makes it possible — without us doing anything — to move across platforms, to move across computer types, and to go further on the network than anyone has ever gone before.”*

**Bill Callahan**

Associate Dean

UNI College of Education

Co-director, INTIME project

## Introduction

Founded in 1876, the University of Northern Iowa (UNI) has a student body of more than 14,000 and an instructional faculty of 880 (fall 2001). For five consecutive years, UNI has ranked in the top two of Midwest public universities by U.S. News & World Report and is recognized as a leader in the field of teacher education.

UNI is also at the forefront of integrating technology into the university experience and throughout its individual programs. In 2000, UNI received honorable mention in the EDUCAUSE Excellence in Campus Networking competition. The university also provides high-speed network computing throughout its on-campus housing.

## The Need

As early as 1997, UNI faculty members realized the value of interactive media and began producing various types of streaming media content, which would be delivered via LAN and the Internet with the goal of communicating more effectively with students, faculty, alumni and others.

At the same time, various reports\* raised concerns that teacher education programs nationwide were deficient in training teachers to use technology effectively. In 1999, the U.S. Department of Education awarded a \$2.4 million grant to UNI to address these concerns. The result is the Integrating New Technologies into the Methods of Education (INTIME) project, an Internet-based library of streaming media case studies.

UNI has a consistent and urgent need to optimize training effectiveness within its teacher education program to prepare teachers to use technology effectively in their individual classrooms. As the lead institution for INTIME, the university is also responsible for disseminating best practices in technology education (via the online case studies) to a globally diverse audience.

## The Solution

After evaluating a host of solutions and companies, UNI chose Real®, the pioneer and leader in streaming media technology. Other solutions required the university to build out a separate network to deliver streaming media, whereas Real technology utilized the school's existing network infrastructure.

## The UNI Network

- 1 gigabit backbone
- 1 gigabit to each building on campus
- 100 Mbps to each desktop on campus

- Compaq 3000 server platform
- Microsoft® Windows® operating system

UNI deployed a network of RealSystem® Servers and Proxies to deliver streaming media to a wide range of audiences. The solution included deployment of RealPlayers® for media playback across desktops campus-wide, and content creation and management tools.

## The Real Solution

- 3 RealSystem Server Professionals
- 5 RealSystem Producer Professionals
- 17 RealSystem Proxy Caches
- RealPlayers (on desktops across campus)
- 2 terabyte storage capability
- Virage Search and Indexing Tools (integrated with RealSystem)
- Lariat Media Reports (integrated with RealSystem)

### According to UNI's Center for Educational Technology, Real technology:

- Operates over any platform in the existing network infrastructure, requiring little or no additional investment
- Provides the most scalable and reliable platform for delivering high-quality streaming media content to a global audience with a wide range of individual connection speeds
- Supports the broadest array of data types — RealAudio®, RealVideo®, Apple® QuickTime®, MP3, MPEG 1, MPEG 2, .wav, .avi, .jpg, Macromedia® Flash®— that can be delivered via one platform (i.e., RealSystem)
- Supports every major server platform, including Microsoft Windows, Apple Macintosh and Linux, as well as Apple's QuickTime player platform
- Supports SMIL (Synchronized Multimedia Integration Language), which allows synchronization of multiple files to create a dynamic user experience involving audio, video, text, pictures and more allows IS managers to control bandwidth consumption
- Delivers the highest quality of service to users in “the last mile” with proxy cache technology
- Integrates well with a host of third-party products for indexing, managing and tracking content
- Includes load balancing, redundancy, security features, protection of intellectual property rights and more
- Provides a platform for the future through constant innovation and solutions for new technologies, including set-top boxes and handheld units

*“Real is a great partner to get us into the future as far as delivery of media content. We can count on them; they’re reliable.”*

**Rick Seeley**

UNI Center for Educational  
Technology

*“Through our partnership with Real, we’re able to use streaming media to disseminate [our] ideas globally.”*

**Karla Krueger**

Curriculum and Technology  
Project Specialist  
UNI Co-director, INTIME

*“One of the strengths of video streaming [is that] it’s there to return to, it’s there to be critiqued...these are real teachers, in real classrooms.”*

**Vicki Oleson**

Teacher, 6th Grade Math & Science  
Price Laboratory School  
Waterloo, Iowa

*“I know I’m going to use streaming media with my students. If they can actually get a picture in their head, they’re going to understand it much more than just reading some text.”*

**Teri Martin**  
UNI Graduate Student,  
Educational Technology

No other company offers the expertise of Real as well as the seamless integration, exceptional flexibility, technical reliability and open architecture of Real products and solutions.

## Mission Accomplished

UNI was seeking to communicate better with internal audiences (particularly those students, or pre-service teachers, in its teacher education program) and external audiences (those in-service teachers taking advantage of INTIME, as well as alumni and others). Real technology enables exactly that.

Real solutions allow a diverse audience of students and teachers to access streaming media content — including the INTIME video case studies — anywhere, anytime.

Using Real streaming media technology, audio, video, text, Web-based content and more are combined into a powerful, immersive presentation. Users are free to stop, rewind, replay, analyze and search the materials according to their individual needs, while content administrators can index, manage and track usage.

## About Real

Real is the global leader in Internet media delivery. It develops and markets software products and services designed to enable users of personal computers and other consumer electronic devices to send and receive audio, video and other multimedia services using the Web.

Discover how Real can build streaming media solutions to help your organization communicate better. Visit us at [www.realnetworks.com](http://www.realnetworks.com) or contact a sales representative at **1-800-444-8011**.

Learn more from Associate Dean Bill Callahan and other streaming experts at UNI about their deployment of streaming media. Video case study available at: [www.realnetworks.com/industries/resources/casestudies/](http://www.realnetworks.com/industries/resources/casestudies/)

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- \* U.S. Congress, Office of Technology Assessment. (1995). Teachers and technology: Making the connection (OTA-HER-616). Washington, DC: U.S. Government Printing Office.
  - \* National Council for Accreditation of Teacher Education. (1997). Technology and the new professional teacher: Preparing for the 21st century classroom. Washington, DC.

