

OUS Distance Education Systems

Instructors and students in Oregon have numerous delivery systems and services available to develop and have access to distance education courses. The development of on-line courses is generally supported by the school or campus that employs the instructor. Campuses and schools use a wide range of on-line courseware including BlackBoard, WebCT, eCollege and EMBANET. For many universities and schools in Oregon, access to the Internet and a broadband intrastate computing network is provided by OWEN, a collaboration among three state computer networks.

In addition to on-line courses, distance education courses are also delivered using a variety of video networks. K-12 operates an Internet Protocol (IP) video conferencing network that connects high schools, ESDs, community colleges and universities throughout Oregon. Community colleges also deliver telecourses over regional cable access channels and ITFS (Instructional Television Fixed Service) channels. OUS campuses use an internal IP video network, a microwave network, ITFS and videotapes to deliver educational opportunities. All three sectors are experimenting with various video streaming and archiving distance education applications

OWEN (The Oregon WidE area Network)

OWEN is a collaboration among three state computer networks to realize cost savings by sharing bandwidth and access to Internet providers. The three networks include the OUS NERO network (<http://www.nero.net/>), the Oregon Department of Administrative Services (DAS) network (<http://irmd.das.state.or.us/ens>), and OPEN (<http://www.open.k12.or.us/index.html>), the state's K-12 network. NERO acts as the network service provider for OWEN. OWEN partners aggregate traffic from their respective members and interconnect with each other and the global Internet through NERO. OWEN provides broadband intrastate services among participants and redundant broadband access to commercial Internet providers. The network provides online access to courses, research materials and other educational services. OWEN's K-20 collaboration played a key role in Oregon becoming one of the early participants in the national Internet2 K-20 Initiative (<http://k20.internet2.edu/index.shtml>). The goal of the Internet2 K-20 Initiative is to bring advanced networks and services directly to innovators across all education sectors.

Internet2

Internet2 (I2) is the leading next-generation Internet for higher education and research. Over 170 U.S. research universities connect to I2 and a growing number of counterpart international networks via high-speed circuits. Connection to I2 is via Abilene (runs over Qwest facilities) or the legacy vBNS (runs over MCI facilities). Sites can connect to Abilene or vBNS directly, or share a circuit via an aggregation point known as a Gigapop. UO, OSU, EOU, OIT, SOU, and WOU all connect via the Oregon Gigapop run by UO, which connects to Abilene via an OC3 to Denver, CO, and an OC3 to Sacramento, CA. In summer 2000, PSU, OGI, and OHSU brought up the Portland Research and Educational Network (PREN), which provides OC12 connectivity via the University of Washington's Gigapop in Seattle. Oregon public schools (K-12) also participate in I2 through the Internet2 K-20 Initiative.

Oregon Access Network (OAN) <http://www.ode.state.or.us/oraccessnet/>

The Oregon Access Network (OAN) is a two-way interactive videoconferencing network that links over 200 sites throughout Oregon. One of the nation's first comprehensive IP-based video networks, OAN includes high schools, Education Service Districts (ESDs), and provides connections to community colleges and higher education sites. Videoconferencing units are connected through dedicated, frame-relay video circuits or through aggregated video and data broadband connections. Eight regional hubs provide conferencing and scheduling services. OAN is used for administrative meetings, teacher training and professional development, and K-20 distance education courses and programs.

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OUS Distance Education Systems *(continued)*

OUS Videoconferencing Services (InTelNet Operations Network center) <http://video.ous.orst.edu/>

OUS operates a videoconferencing system for administrative and distance education use. In 2001 OUS upgraded the Lucent Multipoint Conferencing Unit (MCU) to handle both ISDN-based (H.320) and IP-based (H.323) videoconferencing units. The OUS hub connects OUS institutions and regional education centers with community college and K-12 sites within Oregon and with a wide variety of videoconferencing units worldwide.

Oregon WIN (Oregon Wireless Instructional Network) <http://oregonWIN.org/>

Oregon WIN is a consortium of universities and community colleges that operates an Instructional Television Fixed Service (ITFS) network throughout the Willamette Valley. The “last mile” wireless network provides video programs directly to homes, businesses, schools and government offices from Eugene to Portland. Oregon WIN operates in partnership with Sprint Corporation. Oregon WIN leases excess ITFS spectrum to Sprint for commercial use in exchange for the construction and operation of the Oregon WIN educational network.

The Oregon WIN network provides broadcast quality video and audio to a growing number of sites in the Willamette Valley. Programming for the Oregon WIN network originates from the studios of the 10 member institutions. Programs and services include certificate programs, credit course and degree programs, cultural events, and direct access to national and international commercial television networks. Oregon WIN also partners with the Oregon Legislative Media Services and the Oregon Public Affairs Network (OPAN) to provide coverage of the Oregon Legislature and other public affairs programs to schools and public access cable television channels in 300,000 homes in Oregon.

Oregon Public Broadcasting (OPB) <http://www.opb.org/>

OPB offers an array of services for educators including PBS telecourses and other video-based content. OPB Teacher Resource Staff is currently preparing to offer portions of their teacher outreach events via the Oregon Access Network.

The Oregon Department of Administrative Services, Information Resources Management Division (DAS IRMD) <http://irmd.das.state.or.us/>

Several departments within DAS IRMD provide distance education resources and services to state agencies and to the general public. Enterprise Network Services (ENS) (<http://irmd.das.state.or.us/ens/>) provides videoconferencing, network connections and webpage development services to state agencies. Oregon VOS (<http://www.oregonvos.net/>) provides an array of on-line services including Internet access, mail hosting, on-line conferencing services and WebCT on-line learning services. VOS operates Oregon's only state-wide public online network and Internet gateway. The network provides access to on-line information and training resources and the Internet. VOS has established local dial-up connections in 36 cities. As a result, people in more than 225 Oregon towns can easily and affordably find information they need.

Source: OUS Office of Academic Affairs.