



NEVADANET INTERCONNECTION POLICY

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1.0 Purpose

The purpose of this policy is to quantify the roles and responsibilities related to the establishment and operation of a wide area interconnection to the NSHE statewide video/data network known as NevadaNet by entities authorized to make such interconnections.

2.0 Scope

The NSHE statewide data/video network known as NevadaNet is operated by the System Computing Services (SCS) division of the Nevada System of Higher Education (NSHE) and is comprised of a high-speed backbone network connecting geographic hub locations throughout the State of Nevada. From these main hub locations, individual “Last Mile” spur circuits, predominantly supplied by commercial carriers, extend to numerous individual site locations in communities throughout the state. Capabilities of the network include:

- Video conferencing and centralized video scheduling
- Wide area intra-network data connectivity
- External connection to the commodity Internet and the high-speed research network called Internet2

Data/Video Network support is provided for the following applications:

- Higher education and K-12 distance learning applications
- Higher education Research programs
- University of Nevada Medical School and other Telemedicine initiatives
- Department of Corrections and Parole Board programs
- UNR Cooperative Extension programs
- Desert Research Institute environmental research programs

This policy applies to all entities that utilize the NevadaNet backbone to provide wide area connectivity to their respective local area networks.

3.0 Policy

3.1 Who Can Connect to and/or Use the NevadaNet Network?

Use of the NevadaNet network is restricted to NSHE institutions and NSHE Affiliates that directly support the research, instructional, telemedicine/rural health, and administrative objectives of the NSHE.

Other Federal, State, and local governmental agencies may be allowed, on an exception basis, to interconnect with the NevadaNet network if such an interconnection is determined to be in the overall best interest of the State of Nevada. Eligibility will be determined on a case by case basis.

Use of the NevadaNet network to provide services that support for-profit activities of a NSHE Affiliate/Connecting Entity or activities whose purpose is not in direct support of the State of Nevada or NSHE mission is strictly prohibited.

3.2 Making a Connection to NevadaNet

Any entity meeting the connection requirements stated in paragraph 3.1 that wishes to make a new network interconnection or modify an existing connection to NevadaNet will be required to begin the process by submitting an email service request to the SCS Service Desk at:

<http://www.scs.nevada.edu/default/index.cfm/contact-scs/>

The request should include such information as the requestors name, title, institutional affiliation, and contact information (including phone number and e-mail address), purpose of the interconnection, connection location, capacity required, the anticipated applications to be used, service location(s), required in-service date, and other appropriate project and site contact information.

For a complete description of the project process associated with the design and implementation of a network interconnection, please contact the SCS Assistant Director of Network Engineering at (702) 720-3310 or tom_nieva@nshe.nevada.edu

www.scs.nevada.edu

3.3 Operating Policies and Procedures

Entities connected to the NevadaNet network are required to abide by NSHE and NevadaNet operating policies and procedures. This information can be found at the System Computing Services external web site address referenced above. These policies and procedures govern the acceptable use of network facilities and services and are modified and updated periodically.

At some point prior to the provision of network service, the Connecting Entity will be required to approve an overall scope of work (SOW). The SOW will outline the specific responsibilities as well as the terms and conditions for the establishment and ongoing maintenance and operation of the network interconnection.

All NevadaNet Connecting Entities assume responsibility for providing reasonable dissemination of the NevadaNet operating policies and procedures at their sites and for communicating these policies and procedures to a proper administrative authority at all sites within the Connecting Entity's internal network.

3.4 Interconnection Fiscal Responsibilities

Making an interconnection to NevadaNet requires the expenditure of resources both for the initial installation and for ongoing operation and maintenance. In some instances, ongoing service charges may be applicable that are over and above the one time initial cost to provide the interconnection.

The following is a summary of the functional and fiscal responsibilities of SCS and a Connecting Entity with respect to the establishment and maintenance of a NevadaNet interconnection.

Connection Design/Specification Costs – SCS personnel will provide a network interconnection design and site specific material list(s) that adheres to current SCS network interconnection standards for all proposed and approved interconnection requests. SCS will not charge the Connecting Entity for these design/specification activities. These activities are limited to interconnection facilities only and do not include any analysis or design activities associated with the local internal network of the Connecting Entity.

One-time Initial Equipment Purchase – The Connecting Entity is responsible for funding the initial acquisition of all network equipment necessary to support the incremental addition of a specific interconnection. In most cases this involves specific site equipment and Last Mile connections, but under some circumstances modifications to the backbone itself may be necessary to support the requested interconnection. If funds are available, SCS will attempt to participate in any necessary backbone improvements, but if SCS funding is not available, the Connecting Entity is responsible for all required one-time equipment costs.

Ongoing Equipment Maintenance – The Connecting Entity is also responsible for the ongoing maintenance of all network interconnection or local network equipment that it owns and controls. This responsibility includes such things as equipment maintenance contracts, and periodic patches, and software upgrades in order to keep the Connecting Entity equipment current and compatible with the NevadaNet backbone network.

SCS will endeavor to secure funding in its base biennial Operations budget for the ongoing maintenance of network equipment that it owns, manages, or controls, on its side of the Point of Demarcation resulting from the addition of any new connection to the network, but until that funding is obtained, the Connecting Entity is responsible for the incremental cost of all maintenance or upgrades necessary to support their interconnection regardless of the physical location.

Initial Equipment Installation/Testing Costs – SCS personnel will initially install and test all network interconnection equipment up to the Point of Demarcation defined in the project Scope of Work. The Connecting Entity is responsible for the purchase, installation and testing of equipment and wiring/cabling infrastructure on its side of the Point of Demarcation unless otherwise agreed to in writing by SCS.

Equipment/Network Upgrades – Once an interconnection to NevadaNet has been established the costs associated with any changes or modifications required to increase the

capability beyond that of the original design are to be funded by the Connecting Entity in the same manner as was done with the initial installation.

End of Life Equipment Replacement – SCS is responsible for the end of life replacement of all equipment that it owns and controls. The Connecting Entity is responsible for end-of-life replacement of all network equipment that it owns and controls including that which is controlled or managed by SCS on behalf of the Connecting Entity.

Backbone Connections – SCS is responsible for providing a robust backbone network that has adequate capacity and expandability to accommodate normal anticipated service growth. Base level resources are typically available via the normal NSHE budgeting process to participate in the development of backbone facilities necessary to support typical user interconnections. When the scope of a particular interconnection request exceeds the ability of SCS to provide backbone support, it will be necessary for the Connecting Entity to fund all or part of the one-time and ongoing costs for backbone equipment necessary to support the requested incremental connectivity until such time as additional funding can be obtained and the ongoing backbone expense responsibility can be transferred to SCS.

Last Mile/Intra-Institutional Connection Costs – Because Last Mile and intra-institutional or Satellite Campus connections, by definition, carry only the traffic of a specific Connecting Entity, they are not considered backbone connections. For this reason, financial responsibilities associated with procurement and ongoing service provision of Last Mile and/or Intra-Institutional connections are the sole responsibility of the Connecting Entity.

3.5 Ongoing Monitoring, Troubleshooting, and Maintenance

Once a NevadaNet connection has been established, additional responsibilities and activities associated with continued operation of the connection are delineated as follows:

SCS will assume responsibility for all backbone monitoring, control, maintenance and troubleshooting for circuits and equipment up to the connection Point of Demarcation.

Where the Connecting Entity is directly funding a Last Mile commercial leased circuit, the Connecting Entity will be required to notify the commercial service provider whenever SCS is authorized to act on its behalf with regard to service testing and troubleshooting service restoration activities associated with the circuit.

SCS will provide notification to the Connecting Entity of emergency situations as well as planned maintenance and other activities that could potentially impact network service continuity.

As resources are available, SCS will assist the Connecting Entity with testing and troubleshooting of problems within the Connecting Entity's local network to the level that it can from a remote monitoring point, but overall responsibility for all monitoring,

maintenance, and troubleshooting of the equipment and services on the Connecting Entity's side of the Point of Demarcation rests solely with the Connecting Entity.

The Connecting Entity is responsible for providing technical contact information so that communication with Connecting Entity technical staff and site access by SCS can be established or coordinated as necessary. The Connecting Entity is also responsible for keeping this contact information up to date as changes occur.

4.0 Enforcement

SCS will make every attempt to inform NevadaNet constituents of a failure to abide by this policy and will work with the Connecting Entities to address non-conformance situations. Failure to take action to address and mitigate a non-conformance situation will result in escalating corrective action by SCS that could ultimately result in the disconnection of the offending entity from the NevadaNet network.

5.0 Related Policies and Documents

NSHE Computer Use Policy
SCS Service Catalog
NevadaNet Appropriate Use Policy
NevadaNet Video Scheduling and Use Policy

Copies of these policies and documents are posted on the SCS Website

www.scs.nevada.edu

6.0 Additional Information

Questions related to NevadaNet connection policies should be addressed via the SCS Service Desk (support@nevada.edu) to:

SCS Director, Network Services
1664 N. Virginia St. M/S 270
Reno, NV 89557-0023

7.0 Glossary

Backbone Connection – A single network link, circuit, or hub that carries the traffic of multiple NevadaNet entities

Biennial Budget – The State of Nevada 2-year budget cycle and official source of NSHE/SCS funding

Connecting Entity – Any entity that meets the NevadaNet connection requirements and has sought and received authorization to establish a NevadaNet interconnection

Intra-Institutional Connection – A private use network interconnection between a main institutional campus/site facility and an associated satellite campus location where the traffic is limited to one institutional entity

Last Mile Connection – The final physical network connection from a NevadaNet backbone connection or hub to the actual customer premise that carries only the traffic of the specific authorized Connecting Entity

NSHE – The Nevada System of Higher Education

NSHE Affiliate – Any Federal, State, or local governmental entity that enters into a legally binding cooperative agreement with NSHE and/or its operating entity System Computing Services that defines the terms and conditions by which network services will be provided

NSHE Institutions – The University of Nevada, Reno (UNR), The University of Nevada, Las Vegas (UNLV), The College of Southern Nevada (CSN), Nevada State College (NSC), Great Basin College(GBC), Western Nevada College(WNC), Truckee Meadows Community College (TMCC), and the Desert Research Institute (DRI)

Point of Demarcation – The mutually acknowledged physical network boundary or dividing point(s) that separate network equipment owned, or controlled by SCS from that of the Connecting Entity

Satellite Campus – An NSHE auxiliary institutional teaching facility that is geographically removed from a main campus location

SCS – System Computing Services; the division of NSHE that develops and maintains the statewide network known as NevadaNet

8.0 Revision History

Date	Version #	Author (s)	Change Summary
9/29/2008	1.01	Ed Anderson	
10/24/2008	1.02	Ed Anderson	Edits/Revisions

3/12/2012	1.03	Ed Anderson	Edits/Revisions
8/1/2014	1.04	Ed Anderson	Edits/Revisions

9.0 Approvals

All signature approvals are maintained under separate cover and are filed according to document classification.