



*Connecting
Science, Education,
& Economic Development*
An NSF Workshop Series for Capacity
& Community Planning

Campus Cyberinfrastructure
Data, Networking, and Innovation Program
(CC*DNI)

Part 6 for Regional Planning

November 5 – 6, 2015
Northern New Mexico College
Center for Performing Arts

CONNECTING

Science, Education, and Economic Development

EVENT BACKGROUND

The “Campus Cyberinfrastructure - Infrastructure, Innovation and Engineering (CC*IIE)” program invests in improvements and re-engineering at the campus level to support a range of data transfers supporting computational science and computer networks and systems research. The program also supports Network Integration activities tied to achieving higher levels of performance, reliability and predictability for science applications and distributed research projects. CC*IIE awards will be made in six areas. Data Driven Networking Infrastructure for the Campus and Researcher awards will be supported at up to \$500,000 total for up to 2 years. Network Design and Implementation for Small Institutions awards will be supported at up to \$350,000 total for up to two years. Network Integration and Applied Innovation awards will be supported at up to \$1,000,000 total for up to 2 years. Identity and Access Management Integration awards will be supported at up to \$300,000 total for up to two years. Campus CI Engineer awards will be made at up to \$400,000 total for up to 2 years. Regional Coordination and Partnership in Advanced Networking awards will be made at up to \$150,000 for up to 2 years.

Day

1

Coffee & Meet-Up

Center for Performing Arts, Northern New Mexico College
Española, New Mexico

8:30 AM – 9:00 AM

Welcome to Northern New Mexico College

Nancy "Rusty" Barceló, President, Northern New Mexico College

9:00 AM – 9:05 AM

CONNECTING NETWORKS

Introduction to the Topic and Moderation

Norma Grijalva, Chief Information Officer, New Mexico State University

9:05 AM – 9:10 AM

Science DMZ Design & Implementation

Steve Perry, Director of Networks, University of New Mexico
Piyasat Nilkaew, Director of Networks, New Mexico State University

9:10 AM – 10:00 AM

This session presents "science demilitarized zone" concepts, focusing on ESNets recommendations and design considerations unique to regional institutions.

Deep Buffer Switches & TCP Traffic Characteristics

Steve Perry, Director of Networks, University of New Mexico
Piyasat Nilkaew, Director of Networks, New Mexico State University

10:00 AM – 10:55 AM

This session explains the requirement for deep buffer switches, what they bring to the table and the TCP traffic characteristics that drive the requirement.

BREAK
10:55 AM - 11:10 AM

Science DMZ Tools

Steve Perry, Director of Networks, University of New Mexico
Piyasat Nilkaew, Director of Networks, New Mexico State University

11:10 AM – 12:00 PM

This session describes how to utilize the recommended tools for Science DMZ security/protection (Bro) and performance measurement and collection (PerfSonar).

LUNCH
12:00 PM - 1:00 PM

CONNECTING SCIENCE

Introduction to Topic and Moderation

Pedro Martinez, Provost, Northern New Mexico College

The Network as an Instrument

1:00 PM – 2:00 PM

Karl Benedict, Director of Research Service Data Services, University of New Mexico

This discussion serves as an introduction to viewing the network as an instrument—and integral part of what is increasingly known as “e-science.”

BREAK
2:00 PM - 2:15 PM

Faculty Panel on Network Impacts

2:15 PM – 4:30 PM

Jorge Crichigno, Associate Professor, College of Engineering and Technology

Mario Izaguirre-Sierra, Assistant Professor, Biology

David Torres, Chairperson, Mathematics and Science

Brook Milligan, Professor, Biology

Karl Benedict, Director of Research Service Data Services

Researchers from Northern and NMSU will show how the network has impacted their research—whether it has been an impediment or an enabler, and what obstacles exist to doing e-science.

Keynote at Thursday Evening Reception

5:00 PM – 7:00 PM

Anthony's on the Delta

233 N. Paseo de Oñate, Española, NM

Regional Planning Successes and Opportunities

Tim Armer, North Central New Mexico Economic Development District

Day

2

Coffee & Meet-Up

Center for Performing Arts, Northern New Mexico College
Española, New Mexico

8:30 AM – 9:00 AM

Welcome to Northern New Mexico College

Nancy "Rusty" Barceló, President, Northern New Mexico College

9:00 AM – 9:05 AM

CONNECTING COMMUNITY

Introduction to Topic

Moira Gerety, Deputy Chief Information Officer, University of New Mexico

9:05 AM – 9:30 AM

Network Related NSF Grants – Update

Campus Cyberinfrastructure – Infrastructure, Innovation and Engineering Program (CC*IIE)

Gil Gonzales, Moderator

This session will give a brief update on the research institutions that have requested and/or received grants for broadband / networking from the National Science Foundation.

Introduction / Small Campus Grant

- Jorge Crichigno, Northern New Mexico College

Campus Infrastructure

- Gil Gonzales, Chief Information Officer, University of New Mexico

Network Cyber Engineer Grant

- Norma Grijalva, Chief Information Officer, New Mexico State University

Regional Planning Grant

- Moira Gerety, Deputy Chief Information Officer & Grant Project Execution, University of New Mexico

NOTES

Rural Connectivity 101 Panel

9:30 AM – 10:15 AM

Broadband Basics and Internet Services for Communities

Moira Gerety, Moderator

This component covers just a little bit of broadband basics (no test) and then invites members of the community to talk about their networking/broadband uses they have in meeting their organization's' missions.

Services for K-12

- Dean Obermeyer, Technology Coordinator, Los Alamos Public Schools and President, New Mexico Society of Technology in Education (NMSTE)
- Bobbie Gutierrez, Superintendent, Española Public Schools

Services for Millennials

- Timothy Becker, University of New Mexico Graduate Student
- Sergio Cordova, Northern New Mexico College Student

Services for Industry

- Attack Research

New Partnerships Panel

10:15 AM – 11:00 AM

Economic Development, Higher Education, State Government

Moira Gerety, Moderator

Juan Torres, Finance Development Director, New Mexico Economic Development Department

Norma Grijalva, Chief Information Officer, New Mexico State University

Ovidiu Viorca, Public Schools Finance Authority

Kendra Karp, Public Schools Finance Authority

Andree Jacobson, NM Consortium

Joe Franklin, Director of Information Technology, New Mexico Tech

New Mexico Department of Information Technology

This panel will explore how partnerships at the state level have the potential to accelerate broadband activities—from planning to mapping to building.

BREAK

11:00 AM - 11:15 AM

Regional Planning Approaches Panel

11:15 AM – 12:00 PM

Tim Armer, Moderator

Multi-State Planning Perspectives

- Terry Brunner, US Department of Agriculture, New Mexico State Director Economic Development

New Mexico Regional Planning Perspectives

- Tim Armer, Executive Director, North Central New Mexico Economic Development District
- Lauren Gonzales, Los Alamos County

New Mexico Local Planning Perspectives

- City of Española Planning
- Española Valley School District

Planning for Collaboration and Funding

12:00 PM – 12:30 PM

Bruce Armstrong, Grant Writer, University of New Mexico

Brian Ormand, Grant Writer, New Mexico State University

Lunch

12:30 PM – ADJOURN

Norma Grijalva, Chief Information Officer, New Mexico State University

Gil Gonzales, Chief Information Officer, University of New Mexico

- Closing comments.

NOTES



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