

Comments on the Report to the Legislative Finance Committee titled:
Department of Information Technology
Supercomputer and New Mexico Computing Applications Center Report #09-06

Submitted May 21, 2009

By

New Mexico Computing Applications Center

Content

The New Mexico Computing Applications Center (NMCAC) has reviewed the report dated May 12, 2008 prepared by the Legislative Finance Committee (LFC) staff on the NMCAC. This document is in response to that report and provides corrections, clarification, and comments to the LFC report in the interest of ensuring that the LFC has the most accurate possible report to work from in carrying out their duties. This response has been approved the NMCAC Board of Directors.

All information provided in this report is meant to be open and public. All information referenced in this report is backed up by documentation that is available on request. We note that the NMCAC deals with businesses that provide information that is proprietary in nature. Such information is not included in this report. In the event that LFC committee members require access to such information, it will be provided after a nondisclosure agreement is in place.

Following the format of the LFC staff report, this document provides a high-level response to the points followed by a detailed response to the findings and recommendations in the LFC staff report.

The appendix contains, a list of the NMCAC Board of Directors (BOD) Funding Flow Chart, and Chronology.

Overview

The NMCAC was originated to provide significant economic advantage to New Mexico by bringing together the scientific and engineering resources in the state with a world-class computing system. The goal is to create high-paying, high-tech jobs in New Mexico. In order to accomplish this goal, the NMCAC needs to engage in developing the talented workforce needed to drive high-tech development. The NMCAC is also committed to helping communities solve issues that impact their ability to attract high-tech businesses. In carrying out this mission, the NMCAC is establishing gateways at every publicly supported college and university in New Mexico. Thus, the NMCAC provides support to drive both rural and urban economic development.

The NMCAC initially requested \$42 million of funding over five years from the New Mexico Legislature to set the Center on a solid, sustainable footing. As the legislature appropriated less funding than requested for annual operations and recognizing the impact of the economic downturn, the NMCAC revised its request to \$36 million over six years.

The NMCAC is on track to achieve its goal of achieving self-sustaining operations after six years of state support.

The State procured the computing system for the NMCAC in an open, fully competed bid process that resulted in a world-class supercomputing system at remarkable value. Due to a lack of requested legislation in the 2007 regular session, instead of the state creating NMCAC, the research universities in New Mexico under the Research Parks and Economic Development Act created it. The process of fully standing up the NMCAC under that mechanism is just now being completed.

Although the stand-up phase, which we define as having the infrastructure in place to support revenue producing projects, is just being completed. The NMCAC has already attracted business partners and has been a critical element in securing Federal research and development funding for New Mexico. Current projects and other income add up to \$6.64 million, with an additional \$1.36 million reported at the NMCAC board meeting of May 14, 2009. (Information on these projects is provided later in this document.) These projects not only bring revenue into the NMCAC, they also generate additional jobs and revenues in New Mexico. Projects already underway at the NMCAC will create 100 new jobs in New Mexico in the next year, growing to an expected 500 jobs in 4 years. These projects will result in additional revenues to New Mexico of \$13.6M in FY10, growing to a total of \$117M from FY10 through FY14. And this represents only a fraction of what the NMCAC expects to achieve in the coming years.

The LFC staff report raises a number of other issues including various expenditures made by the NMCAC, the incorporation and tax exempt status of the NMCAC, and concludes by laying out their recommendations for next steps.

The remainder of this document provides corrections, clarifications, and additional information (where appropriate) on an issue-by-issue basis in response to the LFC staff report. As will be apparent, the LFC staff report requires significant correction to faithfully represent the actual status of the NMCAC. The NMCAC Board of Directors requests that the LFC staff report be revised and redistributed to the LFC so that the Committee has an accurate basis on which to base their deliberations on the merits of the NMCAC.

Response to Points Contained in the Executive Summary of the LFC Staff Report

1. The LFC report asserts that the computer vendor was pre-selected and raises concerns about the viability of that vendor:
 - 1.1 “Since the vendor was pre-selected, the evaluation of the RF responses was a formality.”
 - 1.2 “SGI filed for Chapter 11 bankruptcy the first week of April 2009, less than two years after the supercomputer was procured and less than three years after emerging from bankruptcy.” (Report #09-06, p.1)

NMCAC Response:

- 1.1 *The computer vendor was most definitely not pre-selected.*
 - o *Detailed information confirming this is provided later in this document (see p 10).*
- 1.2 *The business team of the RFP selection committee reviewed the ability of all vendors (including SGI) to deliver on what they proposed in their bids. The business team conducted a due diligence of SGI’s ability to perform and was aware of the prior bankruptcy of SGI and concluded that SGI was a viable business able to deliver on what they proposed. The recommendation of the business team was that the prior bankruptcy did not constitute a valid reason to reject the bid made by SGI. (The business team of the RFP selection committee consisted of GSD Sec. Arturo Jaramillo, DFA Dep. Sec. Rick Martinez, and EDD Sec. Fred Mondragon.)*
- 1.3 *Since the initial award, SGI has been acquired by Rackable Systems. Rackable, is now in strong financial condition, and will continue to support all activities on the supercomputer for which they have contracted.*
- 1.4 *The NMCAC staff considers the allegation about pre-selection by the LFC staff to be unfounded, without merit and constitutes an unfounded charge against DoIT, NMCAC staff and the procurement team.*
- 1.5 *The bid team, DoIT staff, NMCAC personnel, SGI and Intel staff involved in the procurement process are available to testify under oath that no prior arrangement was made or implied to SGI by anyone involved in the procurement of the supercomputer.*

The NMCAC BOD requests that the LFC staff strike in its entirety any reference or implication from their report that the supercomputer vendor was pre-selected.

2. The LFC staff report questions the ability of the NMCAC to continue as a going concern: “NMCAC's ability to continue as going concern is in question.” (Report #09-06, p.1)
“NMCAC is totally reliant on state appropriations...”
 - 2.1 “Of the 10 revenue generating projects identified in November 2008, only one has generated \$300 thousand.”
 - 2.2 “The supercomputer is not currently generating any revenue nor does it have a rate structure to charge users.”
 - 2.3 “An enterprise operation cannot be self-sufficient if 60 percent of available capacity is given away.”

2. NMCAC Response:

Comments on the Report to the Legislative Finance Committee titled:
Department of Information Technology Supercomputer and New Mexico Computing Applications Center
Report #09-06

The NMCAC is on track to provide significant economic benefit to New Mexico while also achieving self-sustaining operations over a six-year period.

2.1 *The NMCAC has two external contracts in place, two Federal grants in place in which the NMCAC played a critical role and is pursuing six other contracts and several Federal grants. External funding into the NMCAC in FY10 is projected to be \$2.2 million.*

2.2 *The two external contracts will create 100 jobs in New Mexico in the coming year growing to 500 jobs over four years.*

2.3 *The four existing projects will bring \$13.6 million of new revenue into the state in FY10. The four existing projects are projected to bring \$117 million of new revenue into the state from FY10 through FY14.*

The NMCAC does have direct revenues in FY09 from a number of sources. Member institutions provided \$456K of direct salary support for staff to work on the NMCAC. An agreement with Cerelink has brought \$300K of revenue into the NMCAC with an additional \$300K of revenue expected before the end of FY09. Intel provided \$45K of direct support to pay for scholarships for students at the research universities to work for the NMCAC. In addition, two National Science Foundation grants will bring revenues into the NMCAC over the next 5 years. Award of an EPSCoR grant of \$14M from the National Science Foundation to New Mexico provides with \$450K of operations support to NMCAC. The grant from the NSF to New Mexico for the DataNetOne project brings \$11.841M to New Mexico with about \$950K of funds for hardware on Encanto.

In-kind contributions from Intel, UNM, Mesa del Sol for free space comes to \$1.253M. Insigniam Innovation Discovery Center provided a free membership valued at \$50K.

Progress Report – FY 10 Projected Revenue \$2.2M

Company	Industry	Status	FY9-10 \$
1. DMG-Cerelink	Film Media Phase 2: in discussion	Phase 1: awarded by DreamWorks	\$200,000 \$100,000
2. Proprietary client	BioMed/Tech		\$50,000
3. Proprietary client	Federal Entity	In discussion	\$200,000
4. Digital Labs-Cerelink	Film Media	Underway	\$300,000
5. IIDC	BioMed/Tech Software	Under development	\$ 50,000
6. Award not yet made, client not ID	Research Engine	Post start-up in discussion	\$250,000
7. Award not yet made, client not ID	BioMed/Tech	Listed on various proposals	\$500,000
8. NSF Data Net One	Federal Program	New Mexico listed as a winner	\$106,000
9. Epscor Track	Federal Program	Mexico listed as a finalist	\$180,000
10 Green Grid	State Program	Modeling proposal	\$200,000

Current projects and other potential income from the top 10 prospects add up to \$6.64 million. An additional \$1.36 million of potential revenue was reported at the NMCAC board meeting of May 14, 2009. There are over also two dozen other potential prospects that are not in the top 10 listed above that we are developing.

3. The LFC staff report raises concerns about five contracts: (Report #09-06 pages 2 & 3)

Comments on the Report to the Legislative Finance Committee titled:
Department of Information Technology Supercomputer and New Mexico Computing Applications Center
Report #09-06

- 3.1 UNM's accounting services as at \$50,000 duplicates the operations manager contract.
- 3.2 Part-time education director is also a full-time professor.
- 3.3 The COO's contract was not amended before the “not to exceed” limit was surpassed by \$30,000.
- 3.4 Legal services procurement – the report questions two contracts issued - one through DoIT and the Governor's office and one through the University of New Mexico (UNM) with a total compensation of \$148,000, thus requiring a bid.
 - It continues to claim that invoices for services were vague
 - Invoices do not explain exact services provided
 - The attorney hired was paid to review and summarize his own contract
 - The hourly rate of \$150 is between \$76 and \$100 higher than state agencies pay.

3. NMCAC Response:

- 3.1 *Not correct. UNM Financial Services pursuant to a 16 page MOU executed between DoIT, NMCAC and UNM on behalf of New Mexico’s research institutions provides financial support including accounting, banking, reporting and vendor payment. UNM has no fiduciary duty to NMCAC for its services. All fiduciary responsibility for reporting and recording is up to the Operations Manager in coordination with COO. In addition, the operations manager functions as the office supervisor, is in charge of all procurement, human resources and coordination of all meetings, whether telephonic or in person. The Officer Manager is also responsible for all NMCAC Board communications, minutes and official NMCAC documents and filings.*
- 3.2 *Not correct. NMT has relieved Dr. Lori Liebrock of 50 percent of her teaching and administrative duties while serving as the education director for NMCAC. (A letter from NMT verifying this is provided in the Appendix.)*
- 3.3 *The contract extension was verbally agreed to prior to exceeding the limit but was not documented in writing until after the limit was surpassed. The NMCAC has implemented a tracking system maintained by the Office Manager to ensure that such oversights do not occur in the future.*
- 3.4 *As the Center was created under the Research Parks and Economic Development Act the NMCAC is not bound by state procurement procedures.*
 - *We note that the NMCAC has adopted a policy of following state procurement procedures except in cases where doing so would result in a substantial negative impact on the viability of the NMCAC. Such exemptions require approval by the NMCAC BOD.*
 - *Invoices were not vague.*
 - *Edmundo Gonzales, the NMCAC Chief Operating Officer, and an attorney, prepared the contract. This included the preparation of a sole source justification. The contract between Mr. Mills and NMCAC along with the sole source justification was justified to and approved by the NMCAC Board. NMCAC paid its contract attorney \$250 an hour.*
 - *Mr. Mill’s contract does provide for his hourly fee of \$250 per hour. This is the same amount paid by the state agency participating in negotiations with NMCAC to its outside Counsel. The NMCAC determined that, given the prior engagement of Tom Mills while at DoIT, that the most cost-effective solution to resolving legal issues in the creation of NMCAC was to continue to engage Tom Mills as legal counsel*

through completion of the agreements with DoIT. Following completion of those actions, the contract for NMCAC legal counsel will be let out for competitive bid. Statements that we have paid too much for legal services and have been improperly billed are not true.

- *Our attorney has done a tremendous job putting our legal foundations in place by resolving complex matters involving many parties. We have received full value for the fees we have paid. Mr. Mills brings specific superior legal and regulatory knowledge as well as past practice experience to NMCAC. His service was not limited to providing contractual preparation oversight, although that is where he spent most of his time, he served as our General Counsel. He responded to questions about the operation of the NMCAC Board, state procurement practices, tax issues, due diligence matters and individual questions concerning Board and staff issues. As Board Chairman Tom Bowles correctly put it to the LFC Members, "You pay for what you get." During Mr. Mills counsel, we never once received incorrect counsel, he anticipated our issues and helped position us so that we dealt with some very complex and detailed issues correctly the first time. We owe him a great deal and any conclusion or characterization that he is not a consummate professional is wrong.*

4. The LFC staff report raises the concern that if a vendor is selected in FY10 and equipment is installed at the first 15 gateway sites, the current operating budget does not have sufficient funding to support those sites. (Report #09-06 page 3)

4. NMCAC Response:

The agreement with the gateway institutions is that the State will provide and the NMCAC will maintain the gateway equipment. However, all operational costs, including staffing to operate the visualization equipment will be born by the institutions. The institutions will not incur additional operational costs as they will eliminate less productive efforts and replace them with the gateway facilities. The NMCAC will collaborate with the gateway institutions to ensure that staff has the knowledge needed to support and operate the provisioned systems

5. The LFC staff report raises issues about the incorporation and tax-exempt status of the NMCAC. (Report #09-06 page 3)
 - 5.1 The two private sector board members present at least a perception of a conflict of interest since they represent Intel and Cerelink.
 - 5.2 NMCAC's current structure is neither transparent nor fluid.
 - Operations split between DoIT and the non-profit with UNM in the middle.
 - 5.3 In 2009 the Research Applications Act (RAC) was signed into law as a response to NMCAC's request for a mechanism that would allow revenue generated to flow back to NMCAC and not the general fund.

NMCAC Response:

5.1 These Board Members have expertise that is important to making the NMCAC a success. The governance of NMCAC, a Conflict of Interest Policy has provisions that require all parties, regardless of whether they are private sector or public sector, to identify conflicts and recuses themselves on votes that affect their interests.

- 5.2 NMCAC is working to complete all legal agreements to provide clear delineation and separation of activities. Please note, that we have executed over fifty (50) agreements, MOU's and contracts. We have another thirty (30) pending where we have reached agreements in principal. We have approximately five (5) to complete by the end of the FY9
- 5.3 The RAC was created by the legislature in response to the Governor's request as a means of coordinating Science and Technology economic development activities in the state. The creation of the RAC will not affect the operations or status of the NMCAC. It will provide a centralized mechanism through which NMCAC activities can be coordinated with other technology-based economic development activities in New Mexico.
6. The LFC staff report raises a number of concerns about next steps, stating that the NMCAC should: (Report #09-06 page 4)
- 6.1 Revisit the sustainability model
 - 6.2 Enter into MOUs with universities and labs codifying exchange of supercomputer time for staff expertise.
 - 6.3 Determine if and when Intel will no longer provide free hosting services and enter into a contract for those services at a firm fixed price.
 - 6.4 Re-evaluate how the gateways will be supported without any funding.
 - 6.5 Establish a written rate structure.
 - 6.6 Establish one accounting system and renegotiate or eliminate the UNM contract.
 - 6.7 Monitor expenditures closely to ensure that contract limits are not surpassed.
 - 6.8 Require more detailed invoices from legal and request reimbursement for non-client related services.
 - 6.9 Consider a security assessment to ensure confidentiality, integrity, and availability.
 - 6.10 Revisit the Research Parks Act, RAC, and Economic Dev Corp Act to determine which will provide the best structure for a public-private partnership.
 - 6.11 Consider divesting the state of the supercomputer if NMCAC cannot be turned into a going concern.

NMCAC Response:

- 6.1 *The sustainability model is evolutionary and is regularly reviewed and modified as a normal course of events as new developments occur.*
- 6.2 *This would be in violation of the founding principles of the Center under which the member institutions agreed to participate. The purpose of providing time on the computer to the member institutions is not meant to compete with generating revenue for the NMCAC, but to advance the larger goals of the NMCAC by providing training for students, advantaging faculty in their efforts to obtain competed research funding and to develop new capabilities that can promote high-tech based economic development.*
- 6.3 *Intel has agreed to provide space to house Encanto for 5 years at no cost to the state.*
- 6.4 *This item was addressed in Response #4.*
- 6.5 *A formal rate structure already exists – see next.*

Encanto Rate Structure

ENCANTO: CENTRAL PROCESSING UNITS:
<p>\$.30-.35 per CPU per hour. At 100 percent utilization this translates to \$2.9 million to \$3.4 million per year or \$34 - \$40 million per year. The reason for the \$.30-.35 range is to make sure NMCAC can maximize its opportunities as \$.35 is the market rate. It is not reasonable to plan for 100 percent nor has it ever been the plan of the NMCAC due to its mission of education, community development and research based economic development. The following have 58 percent overhead applied unless it is deemed the contributions made by the prospect; offset some of the NMCAC expenses.</p>
STORAGE:
\$275 per month per terabyte or \$3.3K per year per terabyte.
BANDWIDTH:
\$170,000 per month per gigabyte or \$20K per year per gigabyte.
APPLICATIONS EXPERTISE:
<p>Sandia and LANL will charge 1.4 times the salary of the expert and the NMCAC will apply the appropriate OH not to be less than 18 percent Universities will charge their application expert's rate plus the NMCAC 58 percent OH. The average unit cost will be \$250,000 and the application experts will be defined in \$250,000 units per quarter.</p>

- 6.6 *It is necessary for accountability to maintain a separation between invoices generated by the NMCAC and accounts paid by UNM.*
- 6.7 *Agreed.*
- 6.8 *NMCAC is implementing improved process controls.*
- 6.9 *Security currently follows DoIT and Intel procedures. A formal NMCAC policy will be developed and implemented after completion of the MOU with DoIT that governs this policy, which is currently in final negotiations.*
- 6.10 *Not applicable for reasons already discussed.*
- 6.11 *NMCAC is on track to accomplish its objectives albeit on a six-year time scale due to reduced appropriations from the State. At this point it would be highly detrimental to the state's economic development efforts (in particular film and Green Grid) to divest itself of the supercomputer.*

Comments on the Background Information Section of the LFC Staff Report

Capital and Funding Request:

Correction, p. 5, last paragraph: The initial capital request included \$6M for a 40,000 square foot (not 4,000 sq ft) building to house 200 people.

Correction, p. 6, first paragraph: Intel informed the NMCAC that the cost of remodeling the space provided to house the computer in Fab-7 was approximately \$2.5M. Intel subsequently informed the NMCAC that the cost in the Fab-7 space is \$800 per square foot per year. Intel agreed to provide 1500 sq ft to house Encanto in Fab-7 at no cost to the State for a period of 5 years, resulting in an in-kind contribution of Intel to the NMCAC of \$1.2M per year.

Correction, p. 6, first paragraph: Of the \$42M request, \$20M was to come from state capital funds and \$22M from state operating funds.

Correction, p. 6, first paragraph: The \$20M capital funds requested in the first year was requested to procure the supercomputer and smaller versions at three (not two) universities (NMSU, NMT, and UNM).

Correction, p. 7, first paragraph: Bullet #3 should read:

- One of the most powerful computing systems in the world.

Correction: p. 8, sixth paragraph: Computer security is in place and consists of three parts:

1) Physical security, which is maintained by Intel in accordance with their formal, fully documented site security procedures. This includes 24/7 access control to Fab 7, additional access controls to the room at Fab 7 that houses Encanto, and physical and remote video sensing.

2) Access controls for use of Encanto are maintained by DoIT at present in accordance with their security procedures. Every user must be approved by DoIT (see attached form in the Appendix) before they can access Encanto. An agreement is under development between DoIT and the NMCAC that will transfer responsibility for user security from DoIT to the NMCAC. That agreement will require DoIT to review and approve the policies and procedures of the NMCAC before the NMCAC can allow user access to Encanto.

3) Internet connectivity security is maintained by DoIT by use of a firewall installed in the Cisco switch at the ABQ GigaPoP. Firewall security is maintained according to policies set in place by DoIT.

Detailed Response to Major Points Contained in The Findings and Recommendations Section of the LFC Staff Report

1. Vendor Selection

The LFC staff report states: SGI, a vendor just emerging from bankruptcy in 2007, was pre-selected to supply the supercomputer (RFP was issued after the vendor was selected). (Report #09-06 page 1)

NMCAC Response:

- 1.1 No vendor was pre-selected for the procurement.*
- 1.2 Information was sought from supercomputer vendors prior to a funding request and prior to issuance of a RFI in order to establish the level of funding required to stand up a NM computing center. The information obtained was very general in nature and was in line with standard state practices.*
- 1.3 SGI provided preliminary information and Intel indicated it would provide space free of charge to the state for an Intel-based computing system.*
- 1.4 Without prior knowledge of any specifics of what any particular vendor would include in a proposal, a bid team was assembled and prepared a RFP for the supercomputer. The team included computer applications experts from universities and national labs along with the Governor's science advisor.*
- 1.5 The first RFP was issued and resulted in all vendors (including SGI) being eliminated from consideration due to failure to meet mandatory requirements.*
- 1.6 Without any further discussion or interactions with any vendors, the RFP was reissued without any substantial change in technical specifications but with substantial clarification of what must be included in any bid to be considered.*
- 1.7 The business team of the RFP selection committee reviewed the ability of all vendors (including SGI) to deliver on what they proposed in their bids. The business team was aware of the prior bankruptcy of SGI and concluded that SGI was a viable business able to deliver on what they proposed. The recommendation of the business team was that the prior bankruptcy did not constitute a valid reason to reject the bid made by SGI. (The business team of the RFP selection committee consisted of GSD Sec. Arturo Jaramillo, DFA Dep. Sec. Rick Martinez, and EDD Sec. Fred Mondragon.)*
- 1.8 The recent bankruptcy filing by SGI resulted in the takeover of SGI by Rackable, a company with a solid financial basis and high standing in the computing field.*
- 1.9 The NMCAC has been informed in writing by SGI/Rackable that this action will not have any effect on the ability of SGI to support the state supercomputer.*
- 1.10 The bottom line is that SGI delivered on all aspects of the contract in a fully satisfactory manner, including on-going support and systems administration.*
- 1.11 The bid team and SGI and Intel staff involved in the procurement are available to testify under oath that no prior arrangement was made or implied to SGI by anyone involved in the procurement of the supercomputer.*

2. Supercomputer Contract.

2.1 The LFC staff report states: "Intel's hosting offer and SGI's hardware discount gave the partnership an unfair advantage over other potential bidders." (Report #09-06 page 14)

NMCAC Response:

2.1 This may or may not be true, but is not pertinent to the procurement. Neither the State nor any staff associated with the NMCAC had any interactions with any computer vendors in arranging any agreements that would advantage one vendor relative to another. SGI and Intel formed a strategic partnership in which both determined there was a sound business case in providing the bid on the State supercomputer RFP. The State ultimately benefited by the decision of Intel and SGI to offer a discounted price to the State in order to position themselves strategically in the supercomputer business sector.

2.2 The LFC staff report further states: "DoIT requested that SGI continue the test phase after the supercomputer was fully accepted and the performance bond was released because "the state was working on establishing the NMCAC" ... If the supercomputer was still being tested, then the performance bond would not have been released, the retainage would not have been paid, and no money would have been expended on maintenance and support." (Report #09-06 page 11)

NMCAC response:

2.2 The test phase of Encanto did in fact end on June 20, 2008 after an independent assessment team determined that the computer did in fact meet all contractual requirements. At that point, Encanto transitioned to "friendly user mode", a status in which the computing system is fully exercised in real-life applications run by researchers from across the state. This follows the normal process in the computing world. By running a full spectrum of applications, one learns how to most effectively operate the computing system. The DoIT statement to SGI was that DoIT would continue to contract for systems administration support of the computer until the point at which "the NMCAC was established as a stand-alone entity to operate Encanto." During this friendly user period, productive use was made of Encanto by the member institutions, resulting in the education of students, publishing scientific papers, and advantaging the institutions in obtaining Federal R&D grants (thereby bringing additional revenues into New Mexico).

3. Entity Sustainability and Self-Sufficiency Sustainable Revenue Model:

3.1 The LFC staff report states: "Currently, NMCAC is totally reliant on state appropriations." (Report #09-06 page 1, 2, and 4)

NMCAC Response:

3.1 This is incorrect. The Center has direct financial support for staffing from member institutions in FY09 of \$500,000 along with \$300,000 external income to date (with another \$300,000 of external income anticipated by the end of FY09). In addition, there is more than \$1.2 million in in-kind contributions of space to the NMCAC from Intel, UNM, and Mesa del Sol. External revenues in FY10 are projected at \$2.2 million with an additional \$230,000 of direct financial support for staffing from member institutions along with over \$1.2 million in in-kind contributions of space from Intel and Mesa del Sol.

The bottom line is that the NMCAC is on track to achieve self-sustaining operations at the end of

FY13 (total of six years of support requested from the State).

Non-State Revenue:

4. The LFC staff report states: "A document titled *Specific Benefits to New Mexico from the NMCAC* dated January 10, 2009, and authored by the governor's science advisor indicates that the goal for NMCAC is to be self-sustaining by FY14, seven years after initial state funding, not five as initially represented." (Report #09-06 page 5)

NMCAC response:

4. The document provided states that the NMCAC will be self-sustaining in FY14 (i.e., at the start of FY14). Thus, state support is requested for a total of six years. This differs from the original request of support for five years due to the fact that the funding authorization by the legislature has a slower funding profile than requested. The important point is that the total level of state support has not increased, it is simply that the period over which that support is provided has been extended.

Free Use of the Supercomputer:

The LFC staff report states: "The supercomputer is not currently generating any revenue."
NMCAC Response: This is incorrect. An agreement with Cerelink has brought in \$300K of revenue to the Center. Award of an EPSCoR grant of \$14M from the National Science Foundation to New Mexico provides with \$450K of operations support to NMCAC. The grant from the NSF to New Mexico for the DataNetOne project brings \$11.841M to New Mexico with about \$950K of funds for hardware on Encanto. Intel has provided \$45K in cash for NMCAC to support scholarships at the three research universities.

The LFC staff report states: "NMCAC has not developed or adopted a rate structure to charge entities wishing to use the supercomputer.

NMCAC response: This is not correct. A complete rate structure exists and is provided on p 7 of this document.

The LFC staff report states: "According to the chief operating officer, the three research universities, national laboratories and state government will each be allocated 10 percent of the total capacity to run their own jobs. The remaining 40 percent will be reserved for paying customers. An enterprise operation cannot be self-sufficient if 60 percent of available capacity is given away."

NMCAC response: The correct statement is that each of the six founding members (State of NM, UNM, NMSU, NMT, LANL, SNL) are allocated 10% of the available surplus time on Encanto. During the testing period this corresponded to 60% of the total time on Encanto. As more businesses start using Encanto, this decreases accordingly - i.e., businesses have first priority and if excess time is available, that remaining time will be allocated between the NMCAC founding members.

The NMCAC further notes that within the time allocated to the founding members, those applications which are most directly tied to economic development in New Mexico or bring in additional Federal funding to the members are given highest priority. Again, this is in line with the overall mission of the NMCAC to grow high-tech based economic development in New Mexico.

The LFC staff report further states: "Moreover, rates for customers using the remaining 40 percent will have to be high enough to cover the cost of carrying non-paying users."

NMCAC response: "The rate structure developed by the NMCAC is competitive with that of other supercomputing centers. At 40% usage by business customers, all operational costs of the Center would be covered. Additional business usage is necessary to ensure adequate funding to refresh the computing system and to grow and support education and community development efforts."

Projected Expenditures:

The LFC staff reports states: "NMCAC does not have a clear grasp of its future expenditures or how much it will receive in non-state revenues.:

NMCAC response: The NMCAC has a highly detailed budget developed for FY10 and higher-level budgets developed through FY14. Summaries of those detailed budgets are included in the NMCAC Business Plan and detailed spreadsheets are available. Revenue projections are tracked on our dashboard and updated as each project evolves. Given the business development aspect of the NMCAC's mission, it is not possible to project revenues from specific projects in the out years, but the NMCAC has set clear targets for each sector and our dashboard has been developed assuming that less than one-third of the prospects will materialize.

The LFC staff report states: "The staff at NMCAC cannot provide an estimate of how much it will cost to elase the space and what annual escalation costs may be. Additionally, the staff does not know wen the free lease arrangements between SGI and Intel will end."

NMCAC response: This is incorrect. Intel has provided a cost estimate (\$800/sq ft/yr) for the space in which Encanto is housed. However, this is irrelevant as Intel has formally committed to providing space free of charge to the State for 5 years, which is the projected useable life of Encanto.

The LFC staff report states: "The services of the education director were supposed to be provided by NM Tech on a half-time basis at no cost. In March 2009, NMCAC signed a \$131 thousand contract with NM Tech retroactive to July 1, 2008, for those services. Without written memoranda of understanding clearly delineating the services, valuation of the services, and duration of in-kind services, NMCAC cannot properly plan. "

NMCAC response: This is incorrect. The education director worked part-time in FY08 at no cost to the state. When the level of work increased to 50%, NMT formally released Dr. Liebrock from 50% of her teaching and administrative duties, as documented in a letter from NMT to the NMCAC. A formal contract was executed between NMT and the NMCAC detailing the duties and responsibilities of the education director as well as the terms and conditions for reimbursement to NMT for Dr. Liebrock's time.

Actual Expenditures:

The LFC staff report states: "The contract with NM Tech pays a full-time professor \$131 thousand to be NMCAC part-time education director."

NMCAC response: This is incorrect. As stated above, NMT relieved Dr. Liebrock of 50% time to serve as the NMCAC education director.

Legal Services Procurement:

Legal Services Invoices:

NMCAC response to legal services issues raised by the LFC Staff Report have been addressed previously in this document.

IDEAL:

The LFC report states: "**Appendix E** shows 39 of the 44 gateway sites and their installation priority. Among the 30 state-funded colleges and universities, there are also six private colleges. Although the initial proposal for gateway sites included LANL, SNL, Kirtland Air Force Base, and White Sands Missile Range, they are no longer on the list."

NMCAC response: Appendix E shows the 39 sites at which the State will install gateway equipment. The gateway sites at LANL, SNL, Kirtland, and WSMR still exist, but those organizations are responsible for procuring and installing the gateway equipment.

NMCAC Incorporation and Nonprofit Status

New Mexico Research Applications Act

The LFC staff report states: "If indeed this law was enacted to the establish NMCAC, then the nonprofit will have to dissolve and reincorporate under the new law."

NMCAC response: The Research Applications Act (RAC), if it had been passed in 2008, would have been used to stand up the Center. In the absence of legislation, the NMCAC worked with the Regents of the Research Universities to stand up the Center and to put in place legal agreements with DoIT that provided for all the necessary conditions for success of the NMCAC. There is no intent to recreate or modify any of the agreements that have been put in place by the Regents, DoIT, and the NMCAC. The primary reason for requesting the passage of SB205 in the 2009 legislative session is that the RAC is an important part of the state's ability to secure and effectively use Federal stimulus funds for the smart grid. As described previously in this document, the RAC does provide a mechanism to ensure that the NMCAC is fully integrated into the State's efforts to drive high-tech economic development.

The NMCAC does note that the lack of passage of the RAC in the 2007 legislative session did have a significant negative impact on progress of the Center as alternative, more complex, and more lengthy solutions were required to be put in place in order to fully stand up the NMCAC. That, and the reduced level of funding provided by the Legislature for the NMCAC, have resulted in the stretching out of the initial schedule plan from 5 years to 6 years.

Board of Directors:

The LFC staff report includes Appendix F that shows a comparison of Board members in various documents:

NMCAC response: A number of corrections have been made to the table. As has been previously noted, there is no relationship between the board of the New Mexico Research Applications Act and the board of the NMCAC. We note that there is agreement between the NMCAC list and the Articles of Incorporation and Bylaws of the NMCAC.

NMCAC List	Articles	Bylaws	PRC Records	New Mexico Applications Act (12 members)
Tom Bowles, LANL (Gov Office)	Tom Bowles, LANL (Gov Office)	Governor Science Advisor	Governor Science Advisor	EDD Secretary
Marlin Mackey, DoIT	Roy Soto, DoIT	DoIT Secretary		HED Secretary
Fred Mondragon, EDD	Fred Mondragon, EDD	EDD Secretary	EDD Secretary	WSD Secretary
Reed Dasenbrock, HED	Reed Dasenbrock, HED	HED Secretary		NM Council of University Presidents Chair
Veronica Garcia, PED		PED Secretary		Gov. Science Advisor
Bob Mayer, DOH		Telehealth Commission Director	Telehealth Commission Director	National Lab Member
Vimal Chaitanya, NMSU	Vimal Chaitanya, NMSU	UNM VP Research		Business Community
Van Romero, NM Tech	Van Romero, NM Tech	NMSU, VP Research		Local Government
Julia Fulghum, UNM	Julia Fulghum, UNM	NM Tech, VP Research		Post-secondary Public Educational Institution
Terry Wallace, LANL	Terry Wallace, LANL	LANL, VP Research		Rural Economic Development
Rick Stulen, SNL	Rich Stulen, SNL	SNL, VP Research		Venture Capital expert
Stephen Gamble, ENMU		Rural Education		Health Care expert
Tad Powers, Hidalgo Econ		Rural Economic Dev		
Jami Grindatto, Intel	Jami Grindatto, Intel	Private Sector		
Bill Garcia, Cerelink		Private Sector		

Source: LFC

Comments on the Report to the Legislative Finance Committee titled:

Department of Information Technology Supercomputer and New Mexico Computing Applications Center
Report #09-06

This document was prepared by the staff of the New Mexico Computing Applications Center and was approved by the NMCAC Board of Directors.

May 21, 2009



Chairman and President
New Mexico Computing Applications Center Board of Directors

Appendix
Board of Directors

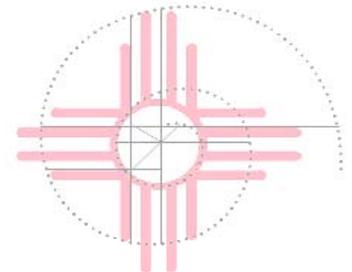
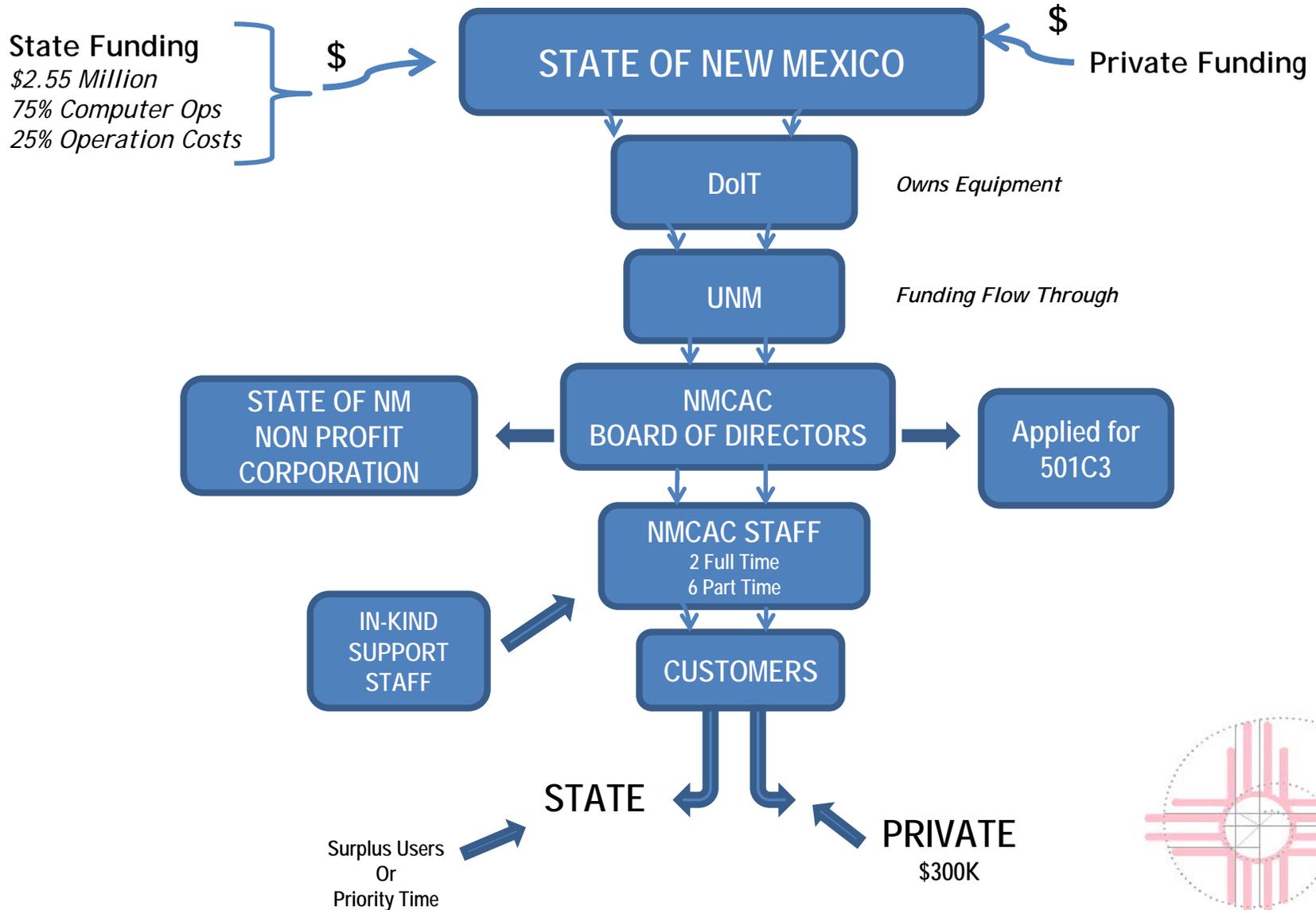
- Tom Bowles Governor's Science Advisor
- Marlin Mackey Secretary of Information Technology
- Fred Mondragon Secretary of Economic Development
- Peter White Secretary of Higher Education
- Dr. Veronica Garcia Secretary of Public Education
- Bob Mayer Dir. Telehealth Commission
- Vimal Chaitanya NMSU VP for Research, Grad. Studies and Int'l Programs

- Van Romero NMT VP for Research and Economic Dev
- Julia Fulghum UNM VP for Research and Economic Dev
- Terry Wallace LANL Principal Associate Director for Science, Technology, and Engineering

- Rick Stulen SNL VP for Science and Technologies
- Jami Grindatto Intel Corporation, NM Corporate Affairs
- Dr. Steven Gamble ENMU President
- Bill Garcia Cerelink, Chairman of the Board
- Tad Powers Rural Economic Development Coordinator

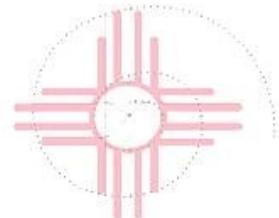
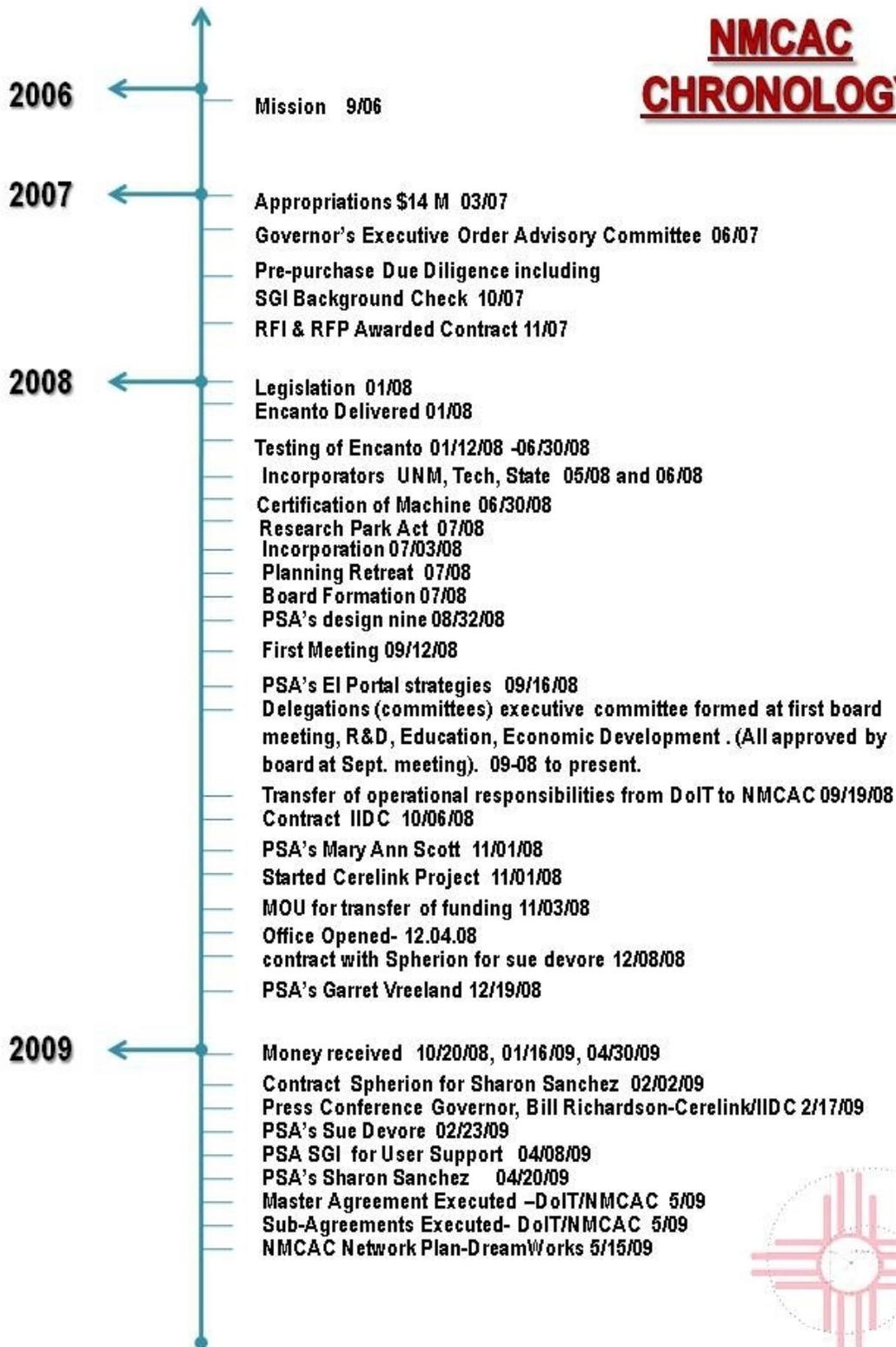
Funding Flow Chart

NMCAC FUNDING FLOW CHART



Appendix
NMCAC Chronology

NMCAC
CHRONOLOGY



Appendix
DoIT Supercomputer Access Request Form



DEPARTMENT OF INFORMATION TECHNOLOGY
NMCAC Supercomputer Access Request Form

It is required that all fields be completed. Upon completion, please return this form as an email attachment to enterprisesupportdesk@state.nm.us with subject, "NMCAC Encanto Supercomputer Access Request". Thank you.

Today's Date:

1. Requestor's Name:

Organization:

Address, City, State & Zip:

Phone No.

Cell Phone No.

Email Address:

2. Requestor's Authorizing Director/CIO:

Phone No. and Cell Phone No.

Email Address:

3. Brief justification for the Access:

4. Duration of the Access (indefinitely is not acceptable):

5. Source IP address.

6. Specify if IP address is a translated address?

7. Service source port #s and service name: