April 14, 2015

The Louisiana Optical Network Initiative (LONI) Management Council (MC) met at

1:00 p.m., Tuesday, April 14, 2015, in the Board Conference Room, 6st Floor, Claiborne Building, Baton

Rouge, LA. Dr. Michael Stubblefield asked for a roll call. A roll call was taken and a quorum was

established. Dr. Stubblefield welcomed everyone.

Council Members Present:	**Council Members Absent:**

Mike Asoodeh via telephone conference
Beth Courtney   Thomas Lovince
Gene Fields via telephone conference   Ramgopal Mettu
Barbara Goodson for Commissioner of H.E.   Eric Setz
Richard Howze
Lonnie Leger
Leo Tran for Charlie McMahon
Brian Nichols
Bettina Owens via telephone conference
Ramu Ramachandran via telephone conference
Ram Ramanujam
Michael Stubblefield
Greg Trahan
Rachel Vincent-Finley
Tony Moore for Melva D. Williams

Guests:
Curt Wallace, DELL
Walt Orgar, DELL
Patrick Keenan, LONI
Ric Simmons, LSU ITS
Mark Edwards, LONI
Sam White, LSU
Angela Mastainich, BoR
Lance Neal, BoR

Dr. Michael Stubblefield asked everyone to look over the January minutes. Dr. Stubblefield entertained a motion to approve the minutes.

APPROVAL OF JANUARY 13, 2015 MINUTES

On a motion from Ms. Goodson, seconded by Ms. Courtney, the LONI Management Council voted unanimously to approve the minutes of the January 13, 2015 LONI Management Council meeting.

Dr. Stubblefield asked Mr. Trahan to begin the Chief Advisor Reports/ Recommendations with Economic area comments.

CHIEF ADVISOR REPORTS/RECOMMENDATIONS

Mr. Trahan stated that he is still in active conversations with 6 to 10 various types of companies. He has had one working group meeting and one thing that has emerged was that so much of his visibility has been external, and there is a need internal visibility around the network. Recognizing that it is a real asset and finding a way to articulate that to the research community in the state so they can leverage it as an asset. He has been looking over the presentations to get a sense for the value proposition of the architecture as an asset. He has put together some materials that are great for out-of-state companies, and now he will do that internally. He will provide a framework for the working group in the near future. He will need input from LONI on network contacts for companies wanting to access and use our assets. He will be focusing on putting together materials for the working group. Dr. Stubblefield asked the working group to consider what the target services or industries are and maybe provide some ideas of what types of companies we can support with LONI. If we can hone in on some particular ones, that will give us better direction. Mr. Trahan stated it's not only a target industry perspective, keeping in mind that the value proposition of LONI is ultimately the asset, and from a state perspective it is hard to have visibility at various member institutions and who is doing what on LONI. If someone is doing topnotch parallel computing, STEM type research, that is valuable to take to a company and let them know that they can be connected to the institution and individual. That may lead to a good partnerships and for our member institutions that would good feedback. He stated that he would outline to the working group the industries he is targeting to provide a sense of the nature of the companies with whom he is speaking. Dr. Stubblefield stated that any emerging opportunity for the State should also drive some discussions. He further stated that there have been conversations about using LONI as a "test bed" for certain services or targeted areas, such as Homeland Security, Transportation Sector. He asked how we translate that core capacity to actually become a "test bed" for those types of critical services. Mr. Trahan stated that the conversations run from an R&D Environment for certain kinds of entities, he had one organization that

inquired about using QB2 in a chunk to do a massive parallel compute of health records. They needed some processing power to run district health data sets. This was a stand along opportunity and he is still pursuing those types of opportunities as well as long-term projects. That is a great example of "healthcare" as an industry sector. He further stated that there are a few companies within that area that he is targeting and any visibility within the State to people that are actively working on some of those types of projects are who he is reaching out to notify about LONI. Ms. Goodson asked if a "pricing sheet" needs to be developed for these types of opportunities. She added that if we are offering LONI to these types of companies it would not hurt to be able to show the cost and since he is discussing computational services for a healthcare provider, it might be beneficial as a sales tool to show the price for LONI services. With LONI being a state asset and the company can have access to it, at, more than likely, below market price. Ms. Courtney stated that "rate cards" are good for internal use to understand what LONI services cost us. She asked the Council if they had read PAR's report on technology transfer, how universities are doing with their research. And, she was wondering if PAR was aware of all of LONI's capacity when they were putting together that report. Dr. Stubblefield stated that the PAR report gave a good overview, but it did not really go into a lot of detail about what is available. He thinks from a LONI viewpoint it would be a good conversation to make them aware that LONI is a State asset that can attract tech transfer. Dr. Subramanian stated that depending on what segment of the market LONI services are being offered to, if it is a highly regulated market and we are entering the market, the rules are different if you are a market participant, as opposed to, a State asset that is self provisioning services, instead of going out in the market and getting service from the markets. She further stated that the rules are different depending on what sector of the industry we are marketing for LONI services. She said that at the appropriate time, depending upon what specific tasks we have, we need to discuss, if it is a highly regulated market and we are entering as a market participant, we need to make sure we have the right protocols in place. Dr. Ramanujam stated that he, Lonnie, and Greg need to have a discussion about this because we can have rate sheets, but it is not always the case that they just need the hardware. He said that on the engineering side that is the biggest issue. We need to discuss whether we want, if it is not a regulated industry, if it is o.k., will we let them bring in their own software, run it, and when they are done, remove the software. That may be easier for us, because a lot of industries use software that they buy from vendors, so it is not public domain software. That may or may not be readily available on the machine. Mr. Leger stated that in this particular transaction, we would not need to have the domain science specialist associated with the CPRA because they bring in their own with the project. He further stated it would be nice to figure out how we connect industry through the LONI asset to our research community. Example, how Ohio engaged Proctor and Gamble to let them do the fluid dynamics

simulations in Pampers, so P&G could make a better product. It allowed Ohio to involve their faculty that were specialized in fluid dynamics and how to interpret the results. Mr. Leger stated that this is the Holy Grail on how we can connect our institutions to industry through the LONI asset. He further stated that we can come up with understanding what our cost models are, from an internal/external awareness. Then how do we couple that with, as Mr. Trahan stated, advocacy inside or internally, so we can potentially, at a much faster rate than now, on how to connect industry opportunities and conversations with actual researchers that are in the related fields. Then, we would have a service that couples a the intellectual property with the computational capability. Mr. Trahan gave an example of what the City of Kobé presented at HBC/Supercompute. They set-up an entire service architecture around it and regularly had industry symposiums. They would invite all of industry, everything from pharmaceutical companies, petrochemical companies, engineering companies, to come and let them show the companies how their system worked. They established a price per core so the organization had a sense of their cost. Dr. Ramanujam stated that this was done through a grant dedicated for economic development. He stated that this may be a model we may want to look at, but he questioned what all is involved. He further stated that the co-locating of some research members from a university is part of it. When they come in, they have offices that are co-located with university graduate assistants and post-Docs Dr. Stubblefield suggested that this may be a good time to have a conversation with the Research Park to discuss incubator space and possibly they could partner with us to help create a strategy for funding. Ms. Goodson stated that Mr. Trahan's initial point was how to connect business to the service. She envisions connecting a company, where ever they are locating with a postsecondary education institution, a research component of that institution, who has the knowledge and access of the LONI network to bridge the two together. Mr. Trahan stated that he thinks, as a baseline, socializing what LONI is, where it is, who owns it, who can use it, how it can be used, and how to interface with it. He suggested that institutions bring awareness to people about their access to LONI. It could possibly make an institution more competitive within their research proposals, making sure they know how to frame it, we provide them with the language they need and they could cut and paste it into the proposals. Also, it may bring attention to some that were not aware they had access to the LONI asset. Ms. Goodson brought up all the military in the New Orleans area, they may have a need for LONI access, they could go to UNO and someone at UNO could assist in connecting the dots and use the LONI Network. It would be beneficial to the institution, company, military, and the Network. Mr. Trahan suggested having in-state "evangelists" to promote and make possible users aware of what all LONI can do for them. Ms. Courtney asked who is the audience? Mr. Trahan stated he thinks it is the internal research community within the state. He said one audience is industry. He stated that in his role at LED, he talks to out-of-state technology companies and he discusses

with them LONI as one of the assets in his proposal about relocating to Louisiana. Ms. Goodson added, hopefully, professional assistance from a researcher at an institution, possibly could be a partner. Mr. Trahan included the petrochemical industry possibly needing assistance. He said we need to have a strategy for different types of audiences. He thinks in the short-term, we need to make our in-state audience aware that LONI is here and we can assist them. Ms. Goodson brought up benefits to Coastal Restoration Protection Authority, bringing them into the LONI Network relative to coastal protection, hurricane protection, and then we began to focus on in-state government agencies that could, also, benefit from the expertise from the network and from the institutions to assist them. Another assumption, in our strategic planning, to make sure we plan to upgrade and replace the QB2 every five years due to the aging of technology. We want to make sure we secure funding to be able to pay for it. Ms. Courtney brought up the PAR report, again, stating it was critical on many levels saying we weren't doing sufficient technology transfers from research done at the universities into the business communities. She thinks we need to bring awareness of LONI being part of the solution. Mr. Leger stated that with the assistance for LED we are getting the message out, but we need to figure out the rules of engagement. Mr. Trahan emphasized that if our goal is to become self-sufficient, we need to establish a strategy. This may include external funding, set-up a rate card, and we need to explore opportunities. Dr. Stubblefield suggested that we have a strategic planning session to help define the next five years and better understand how LONI can draw in economic dollars, as well as, research opportunities. On point of the PAR report is that Louisiana ranks low in terms of how the research dollars are actually generated. Louisiana does not generate that much in private sector research. This lends itself to an opportunity to use LONI to encourage outside development. Ms. Courtney asked if LONI has excess computing capacity, unused capacity and there was an affirmative answer. Ms. Bettina Owens (via telephone) asked what services in-state organizations need? Our researchers that are aware of LONI need data storage, but they do not know the cost. She agreed with the earlier conversations, that if we had a book of services and cost for services, people would be more likely to use LONI. She thinks some may shy away from LONI due to no listing of price for service. Dr. Ramanujam stated that many companies that are in need of computing services, do not like the standard allocation model. They may want a certain number of nodes from Sunday at noon until Friday at noon. This is not the way most academic machines and QB2 is an academic machine, so this is something we would need to address. He suggested that we sell to them on an incremental basis to cost for a node and they use it anytime they want without making reservations. This might be an easier model to price services.

Dr. Stubblefield asked for the Chief Researcher's Advisory Report. Dr. Ramanujam stated that they are exploring regional hubs as NSF has other call-outs. North Carolina has already been in contact

with NSF, which is in the same region as we are, and we will possibly become partners with North Carolina. Mr. Leger stated there have been discussions about having sub-regions or some type of localized.

Mr. Leger stated they have the usual Network Update and the HPC Update and he asked Mr. Sam White to begin with his report.

HPC Update

Mr. White came to the table to present the HPC Update. He stated that QB2 has been up running for several months, now, and most users have been successfully converted. Most of the GPU users are from UNO and they are running their own applications. Dr. Ramanujam asked Mr. White to provide the TA names of the allocations. Mr. White has been investigating what it will take to get the license software on the Cluster. He is getting quotes from Gaussian and MATLAB. He further stated that with MATLAB the academic license allows anyone associated with the campus is licensed. He went over the decommissioning and stated that many campuses are wanting to keep the property, so we are transferring the property to the individual campuses. Mr. White concluded his report. Mr. Leger brought up that he has discussed Gaussian with Dr. Ramachandran and asked him to formulate a written justification of how it is used in a broad context of the advancement of research across the different universities, so we can look at investing in that software. Dr. Ramachandran (via telephone) stated that, relative to the Gaussian license, he has contacted all the computational chemistry researchers in the state the he knows, he is hoping to write a specification that reflects the breadth of use across the state.

Network Update

Mr. Leger stated that the network continues to grow, participation continues to grow. He pointed out that since our last meeting, Dillard University has connected to the network. Mr. Leger went over specifics within the Network Update. He did mention the partnership between LONI and OTM, how they have assisted LONI on our internet services contract. Now they are looking at how they can save money in procuring internet services for their agencies and we assisted them, to utilize contractual education discounts that we have available to us. Ms. Courtney asked about outages. Mr. Leger stated a couple of the outages, one associated with maintenance and another due to change in vendors. Also, moving from one technology to another has caused a few hiccups. He stated they are committed to resolving all issues as soon as possible.

EXECUTIVE DIRECTOR UPDATES

Mr. Leger stated that we have discussed LPHI (LA Public Health Institute) in the past. Their minutes state that in support of their initiative, they are to be a part of the LONI community, because of their award creating the LA Clinical Research Network. They have ask us to establish, under the Council,

a Bioinfomatics Healthcare Committee that they can participate in with their researchers that are external and commercial from the hospital side that are not within the higher education community. We also have several higher education institutions that are also part of their award. They would like to have a committee created that will discuss the issues related to bioinformatics health issues and how they can create a network of people and a network of technology. They would like to see an innovative and futuristic plan of a large network of clinical information being gathered and processed. Ms. Goodson asked if this is the LPHI in New Orleans, Mr. Leger affirmed that it is. He further stated that Pennington, in our area, does a lot of clinical research and solicits the community to participate. He stated that using Pennington as an example and multiplying it many times over and having clinical results available to primary care physicians, this could enhance having medicine more personalized. This would allow researchers to look at the spectrum of demographics of each individual, to a group, within Louisiana, and how healthcare can be administered differently, medicine and preventive care. With this enormous amount of information, how does one look at the nuggets of a trend. Then the information can be extrapolated to review many different combinations to show an elevated awareness of diseases. This may allow researchers to find early detection methods for conditions or diseases. They see a large network involved and they see that participation in higher education from the intellectual property of our research is going to be necessary and this asset of being interconnected with each other, as well as, the commuting power of big data analytics this kind of information. Ms. Goodson asked if they are connected at present. Mr. Leger stated that Patrick Keenan from the LSU staff, is in contact with them to build a cost analysis to bring them directly into the Network. They are adjacent to Tulane, across from the Superdome, so we have some good proximities to the Network and they are working together to fund a high speed connection to the Network. Ms. Courtney asked about LPHI. Mr. Leger stated that LPHI is a non-profit, that responded to a federal program under the Affordable Care Act (ACA) to clinical research. Their CoPIs are LSUHSC, LSU Pennington, Tulane, Ochsner Hospital, and the Cancer Research Center. Ms. Goodson stated that she sits on the Cancer Research Center Board for the Commissioner and they contract with LPHI for the Tobacco-Free Living Component of the Tobacco Secession. She is aware that LPHI was involved in many areas that the cancer research is just one piece of what they do. Mr. Leger stated that this is new for them, taking on an operational role more than they have in the past. They are looking to LONI and higher education to assist them operationalize some of their initiatives. This is a large funded network under the ACA. They are saying, within the next decade, if all plays out, this could be in the $50 billion industry, that will be doing clinical research. Ms. Goodson stated that at the Cancer Research Center Board meetings, one requests that comes from the LSUHSC-NO, Tulane, Xavier, and Ochsner, one question that always comes up at the Board meeting when discussing tobacco secession,

where is the data? Where is the data to prove that the commercials worked, that the price increase worked, etc. They are always pushing to collect the data. They are all over the State doing surveys, they have presence on campuses. Ms. Courtney asked if they were funded by the Tobacco Settlement. Ms. Goodson responded that the 12¢ of tobacco tax, a portion goes to the Cancer Center for operations, a portion goes to tobacco-free living, it's just that they contract with LPHI for the organizational, back office type function. They have people all over the state working with K – 12, colleges, cities, they are involved with the push to get tobacco smoking out of the casinos. Ms. Courtney added that they have spent a lot of money on television ads. Ms. Goodson pointed out that they piggy-back with the Cancer Society and other organizations, to have constant commercials on television. Mr. Trahan stated that they want to use LONI for analysis/data. Mr. Leger agreed and further stated they need the LONI connections that are already in higher education over bioinformatics. They realize that the data set will mushroom when they look at doing clinical data in the volumes that the ACA is expecting. Part of the benefit of the cost reduction of the ACA is this component that participants will do clinical research and feed that back into primary care and preventive care. Mr. Leger considers this as an absolute necessary ingredient. They want to create a community, a committee of communities, to advocate how to do bioinformatics in their relationship that begins around clinical information.

Dr. Stubblefield asked if this was an FYI or is there something they want us to consider? Mr. Leger replied that they have asked the Council, he is asking the Council, to authorize him to create a bioinformatics health working group, to establish this in a working clinical research network, between our institutions and external partners, within LPHI, who are not higher education. It will be an internal and external participating group. **Dr. Ramanujam volunteered Gus Kousoulas to be the Chair of the group**. **Ms. Courtney volunteered to be on the group**. Mr. Trahan asked, since this is federal health data, "who owns the data, how do you use it"? From his vantage point, the whole key is, to establish a model through which we are able to internalize healthcare data and standardize it. This would be something that can be brought to market, if LONI has, not only the connectivity, but the compute power, but all data stores in there that can be tapped. He thinks that would be easy to sell. Dr. Stubblefield clarified that they are asking for a working group within LONI for a Bioinformatics Health Committee. Mr. Leger made the motion, seconded by Ms. Courtney, with no objections, motion passed. Ms. Goodson stated that we only have two committee members, we will need more. **Ms. Bettina Owens volunteered**. Dr. Stubblefield suggested that Mr. Leger send out a note out to Council members asking for recommendations or volunteers. Mr. Leger stated that he thinks that since it is going to be industry, as well, it could be a relatively large group. He thinks that combining the ones already in the group due to the award, it could be 12 – 14. There will be some overlapping, LSUHSC, Pennington, etc. There will be

discussion about data federation and what search criteria and techniques can be used in such large data sets and the security, personal/privacy, HIPPA. He thinks it will be classification data, not personal information, such as, how many have diabetes.

OLD BUSINESS/NEW BUSINESS

Dr. Stubblefield brought attention to the LONI User Allocation and Account Policy in the packet and asked Dr. Ramachandran to go over the changes to the document. Dr. Ramachandran stated that the main change was motivated by the recognition that the first sentence in the original document is no longer valid. He went over the changes and gave explanations. Dr. Ramachandran asked the Council for a vote to approve the changes. Dr. Stubblefield accepted the motion by Dr. Ramachandran to accept the changes, he then asked the Council for a voice vote to accept, with no objections, the revisions were approved. Dr. Ramanujam asked about terms of members of the Committee. Dr. Ramachandran replied that he has been on the Committee since inception, as with many of the members. Dr. Stubblefield asked Dr. Ramachandran to review the Committee members and, if necessary, suggest some additions or modifications to the list. Then bring that to Mr. Leger and Dr. Stubblefield for recommendations, if needed. Dr. Ramanujam stated that his thought is to have member institutions nominating members to this Committee. He further asked who at the institutions is asked for nominations to Committee. Dr. Ramachandran stated it is usually the Vice President for Research or Vice Chancellor for Research.

ADJOURNMENT

There being no further business to come before LONI Management Council, Dr. Stubblefield asked for a motion for adjournment. On a motion by Dr. Ramanujam, seconded by Ms. Courtney, the meeting was adjourned.