

## MPRAC TASK FORCE REPORT TEMPLATE

### DIGITAL MEDIA & ENTERPRISE SOFTWARE

#### PRIORITY INVESTMENT AREA #1: BIG DATA & ANALYTICS

	Short-term (<1 year)	Intermediate (1-3 years)	Long-term (3-5+ years)
<b>1.A Research Strategies, Initiatives, Outcomes</b>	BOR consider investing funds into hosting a statewide workshop on big data including researchers, industry leaders and federal government sponsors.	BOR consider investing 1:1 matching funds into existing NSF and other such national-scale centers and provide seed funds to help pursue the development of new national Centers such as other NSF IUCRCs, STCs, ERCs, NIH BD2Ks, etc.	BOR consider leveraging its prior investments into LONI and the LONI Institute to make significant infrastructure investments into federated big data compute capacity in Louisiana. Further, the BOR should consider re-investments into a statewide research capacity program (such as the successful LONI Institute) into funding scientific and technical personnel to exploit such big data infrastructure investments.
<b>1.A* Identification of Key Participants</b>	BOR Office of Sponsored Programs, VPs/VCs of Research, Faculty, Industry leaders, Louisiana Economic Development, Federal Agencies.	BOR Office of Sponsored Programs, VPs/VCs of Research, Faculty, Federal Agencies.	BOR Office of Sponsored Programs, VPs/VCs of Research, Faculty, LONI Management Council.
<b>1.B Existing and Prospective Strengths which Support 1.A Strategies, Initiatives,</b>	NSF Industry-University Cooperative Research Center (IUCRC) in the area of big data through the <i>NSF Center</i>	Further development of the NSF CVDI, with the addition of more national and international sites; and more	Further development of the NSF CVDI, with a second round of funding and reauthorization by NSF;

<b>Outcomes</b>	<i>for Visual and Decision Informatics (CVDI).</i>	industry partners.	growth and establishment of a NSF STC in this area.
	LSU Center for Computation and Technology (CCT) and LSU College of Engineering have recently enhanced their scientific computation and research faculty expertise in the area of big data.	Growth of LSU CCT and LSU Translational Technology and Cyber Research Center	Growth of LSU CCT and LSU Translational Technology and Cyber Research Center
	Tulane University has recently invested into a HPC cluster to advance its efforts in this area. Tulane's research with NIH and other agencies in health informatics	Strengthening of Tulane's computer science program with greater investments into faculty and researchers	Strengthening of Tulane's computer science program with greater investments into faculty and researchers
	Louisiana Tech recently established the Louisiana Cyber and Data Consortium (LACDC)	Expansion of LACDC	Expansion of LACDC
	<b>Short-term (&lt;1 year)</b>	<b>Intermediate (1-3 years)</b>	<b>Long-term (3-5+ years)</b>
<b>2.A Technology Transfer and/or Commercialization Strategies, Initiatives, Outcomes</b>	Provide state funds for expansion of NSF CVDI and the IUCRC model to other Louisiana universities and other Louisiana-based IT companies. A BOR funded managing director position and/or scientific staff would help the expansion of CVDI to work with the new IT companies in the State.	Fund translational research opportunities in the area of big data; especially with enhanced funding allocation to the BOR ITRS program.  Establish a statewide proof-of-concept funding that is vital to transferring the research out of the labs and into the marketplace.	BOR should consider facilitating existing and new industry-university collaborations and help the expansion of IUCRC models across Louisiana. In this context, Louisiana should leverage its status as an EPSCoR State and pursue opportunities with the National Science Foundation,

			and other agencies.
<b>2.A* Identification of Key Participants</b>	BOR Office of Sponsored Programs, NSF CVDI, VPs/VCs of Research, Faculty, Industry.	BOR Office of Sponsored Programs, VPs/VCs of Research, Faculty, Industry.  LED, LIC, BOR, VPs/VCs of Research, Louisiana Venture /Angel fund operators such as Louisiana Fund One/Two, etc.	BOR Office of Sponsored Programs, VPs/VCs of Research, Faculty, Federal Agencies
<b>2. B Existing and Prospective Strengths which Support 2.A Strategies, Initiatives, Outcomes</b>	Collaborations with IBM, CGI, CSC, GE Capital, Fenway Group, and Enquero (a startup company), among others. CVDI Advisory Board members such as LHCQF, Louisiana DHH, Johnson & Johnson, Lockheed Martin, Microsoft Research, are interested in big data innovations from universities.	Stronger partnerships with IBM, CGI, CSC, GE Capital, Fenway Group, and Enquero.  Expanded relationships with CVDI Advisory Board members such as LHCQF, Louisiana DHH, Johnson & Johnson, Lockheed Martin, Microsoft Research.	Stronger partnerships with IBM, CGI, CSC, GE Capital, Fenway Group, and Enquero.  Expanded relationships with CVDI Advisory Board members such as Johnson & Johnson, Lockheed Martin, Microsoft Research.
	<b>Short-term (&lt;1 year)</b>	<b>Intermediate (1-3 years)</b>	<b>Long-term (3-5+ years)</b>
<b>3.A Workforce Development Strategies, Initiatives, Outcomes</b>	Consider support for the creation of undergraduate and graduate courses and degree programs for traditional students in the area of big data. BOR should specifically support linkages between research universities, community and technical colleges, and K-12 schools for workforce development in this critical	Consider supporting the development of flexible-duration certification programs for industry professionals and non-traditional students. These courses should be available both in traditional and on-line distance learning delivery models. Further, BOR should dedicate matching funds (1:1 match) to support industry	Consider development of statewide partnerships with Big Data companies (like SAP, Splunk) and acquire statewide technology licenses for tools such as SAP HANA, Tableau, Splunk Enterprise, etc.) for research, instruction and training.

	area.	apprenticeship and internship opportunities.	
<b>3.A* Identification of Key Participants</b>	BOR Office of Sponsored Programs, VPs/VCs of Research, Louisiana Workforce Commission, Louisiana Economic Development, Louisiana Department of Education, Louisiana Community and Technical College System (LCTCS).	BOR Office of Sponsored Programs, VPs/VCs of Research, Louisiana Economic Development FastStart.	BOR Office of Sponsored Programs, Division of Administration Office of Information Technology, VPs/VCs of Research
<b>3.B Existing and Prospective Strengths which Support 3.A Strategies, Initiatives, Outcomes</b>	Strong network of partnerships between universities, community and technical college systems and industry	Strong network of partnerships between universities, community and technical college systems and industry	Strong network of partnerships between universities, community and technical college systems and industry

**PRIORITY INVESTMENT AREA #2: CYBERSECURITY, INFORMATION ASSURANCE, INTERNET OF THINGS**

	<b>Short-term (&lt;1 year)</b>	<b>Intermediate (1-3 years)</b>	<b>Long-term (3-5+ years)</b>
<b>1.A Research Strategies, Initiatives, Outcomes</b>	BOR consider investing funds into hosting a statewide workshop on big data including researchers, industry leaders and federal government sponsors.	BOR consider investing 1:1 matching funds into existing NSF and other such national-scale centers and provide seed funds to help pursue the development of new national Centers such as other NSF IUCRCs, STCs, ERCs, NIH BD2Ks, etc.	BOR consider leveraging its prior investments into LONI and the LONI Institute to make significant infrastructure investments into federated big data compute capacity in Louisiana. Further, the BOR should consider re-investments into a statewide research capacity program (such as the successful LONI Institute) into funding scientific and technical personnel to exploit such big data infrastructure investments.
<b>1.A* Identification of Key Participants</b>	BOR Office of Sponsored Programs, VPs/VCs of Research, Faculty, Industry leaders, Louisiana Economic Development, Federal Agencies.	BOR Office of Sponsored Programs, VPs/VCs of Research, Faculty, Federal Agencies.	BOR Office of Sponsored Programs, VPs/VCs of Research, Faculty, LONI Management Council.
<b>1.B Existing and Prospective Strengths which Support 1.A Strategies, Initiatives, Outcomes</b>	<p>Cyber Innovation Center (CIC)</p> <p>Statewide partnerships</p> <p>Louisiana Tech Center for Secure Cyber Space; Louisiana Tech National</p>	<p>Strengthening linkages between universities and CIC</p> <p>Expanding statewide linkages</p> <p>Increased collaborations between Center for Secure Cyber Space and National</p>	<p>Strengthening linkages between universities and CIC</p> <p>Expanding statewide linkages</p> <p>Increased collaborations between Center for Secure Cyber Space and National</p>

	<p>Center for Academic Excellence in Information Assurance Research &amp; Education (NSA and DHS)</p> <p>UNO's Greater New Orleans Center for Information Assurance (GNOCIA); UNO's designation as the National Center for Academic Excellence (CAE) and Research (CAE-R) – NSA and DHS</p> <p>LSU's Transformational Technology and Cyber Research Center</p> <p>UL Lafayette's School of Computing and Informatics</p>	<p>Center for Academic Excellence in Information Assurance Research &amp; Education and other universities</p> <p>Expansion of capabilities and collaborations of GNOCIA and CAE</p> <p>Expansion and Generation of external funding through TTCRC</p> <p>Establish statewide collaborations</p>	<p>Center for Academic Excellence in Information Assurance Research &amp; Education and other universities</p> <p>Expansion of capabilities and collaborations of GNOCIA and CAE</p> <p>Expansion and Generation of external funding through TTCRC</p> <p>Establish statewide collaborations</p>
	<b>Short-term (&lt;1 year)</b>	<b>Intermediate (1-3 years)</b>	<b>Long-term (3-5+ years)</b>
<b>2.A Technology Transfer and/or Commercialization Strategies, Initiatives, Outcomes</b>	<p>Fully exploit opportunities for integration of the Cyber Innovation Center into research and technology transfer opportunities in the area of cyber-security and IOT as an asset for all Louisiana universities. Establish MOUs between universities and the CIC for usage of the Sensitive Compartmented Information</p>	<p>Fund translational research opportunities in the area of cyber-security and IOT.</p>	<p>Establish a statewide proof-of-concept funding that is vital to transferring the research out of the labs and into the marketplace.</p>

	Facilities (SCIFs) located at the CIC		
<b>2.A* Identification of Key Participants</b>	Cyber Innovation Center, BOR Office of Sponsored Programs, VPs/VCs of Research, Faculty, Industry.	BOR Office of Sponsored Programs, VPs/VCs of Research, Faculty, Industry.	Louisiana Economic Development, Louisiana Innovation Council, BOR Office of Sponsored Programs, VPs/VCs of Research, Louisiana Venture/Angel fund operators such as Louisiana Fund One/Two, etc.
<b>2. B Existing and Prospective Strengths which Support 2.A Strategies, Initiatives, Outcomes</b>	Cyber Innovation Center, IBM, CGI, CSC, GE Capital, in addition to national scale CVDI IAB members, as well as major defense contractors resident within the CIC such as Boeing, Northrop Grumman, among others.	Cyber Innovation Center, IBM, CGI, CSC, GE Capital, in addition to national scale CVDI IAB members, as well as major defense contractors resident within the CIC such as Boeing, Northrop Grumman, among others.	Cyber Innovation Center, IBM, CGI, CSC, GE Capital, in addition to national scale CVDI IAB members, as well as major defense contractors resident within the CIC such as Boeing, Northrop Grumman, among others.
	<b>Short-term (&lt;1 year)</b>	<b>Intermediate (1-3 years)</b>	<b>Long-term (3-5+ years)</b>
<b>3.A Workforce Development Strategies, Initiatives, Outcomes</b>	BOR consider support for the creation of undergraduate and graduate courses and degree programs for traditional students in the area of cyber-security and IOT. BOR should specifically support linkages between research universities, community and technical colleges, and K-12 schools for workforce development in this critical area	BOR should consider supporting the development of flexible-duration certification programs for industry professionals and non-traditional students. These courses should be available both in traditional and on-line distance learning delivery models. Further, BOR should dedicate matching funds (1:1 match) to support industry apprenticeship and internship opportunities.	Expand investments into CIC and research universities across the state to develop Louisiana as a National Cyber Security Center of Excellence for Research and Education.

<b>3.A* Identification of Key Participants</b>	BOR Office of Sponsored Programs, VPs/VCs of Research, Louisiana Workforce Commission, Louisiana Economic Development, Louisiana Department of Education, Louisiana Community and Technical College System	BOR Office of Sponsored Programs, VPs/VCs of Research, Louisiana Economic Development FastStart.	Cyber Innovation Center, BOR Office of Sponsored Programs, VPs/VCs of Research.
<b>3.B Existing and Prospective Strengths which Support 3.A Strategies, Initiatives, Outcomes</b>	<p><i>Louisiana Tech: B.S. in Cyber Engineering:</i> Louisiana Tech became the first university in the US to offer a Four Year B.S. degree in Cyber Engineering; Louisiana Tech also offers a graduate certificate program in Communication Systems and a graduate certificate in Information Assurance.</p> <p>UNO: <i>ScienceREACH</i> program to introduce students at local high schools in the New Orleans area to topics in Information Assurance, and digital forensics. High school students visit the laboratory facilities in the Greater New Orleans Center for Information Assurance (GNOCIA)</p>	<p>Potential for the establishment of DHS Center of Excellence with a strong component for the development of a cybersecurity workforce.</p> <p>Potential for strengthening academic research programs at LaTech, UNO, LSU and UL Lafayette.</p>	Potential for strengthening academic research programs at LaTech, UNO, LSU, Tulane and UL Lafayette.



### PRIORITY INVESTMENT AREA #3: ENTERPRISE COMPUTING AND SOFTWARE DEVELOPMENT

	Short-term (<1 year)	Intermediate (1-3 years)	Long-term (3-5+ years)
<b>1.A Research Strategies, Initiatives, Outcomes</b>	BOR team up with LED and major IT companies in Louisiana (IBM, CGI, CSC, GE Capital, Perficient, GameLoft, EA Sports, etc.) and consider investing funds into hosting a statewide workshop on enterprise computing and software development including researchers, industry leaders and federal government sponsors.	BOR consider investing funds into Computing Centers of Excellence at research universities throughout Louisiana that leverage its prior investments into LONI and the LONI Institute.	BOR consider working with the State Legislature and the Governor to reinstate funding for the Governor's Information Technology Initiative (GITI) that was created under Governor Blanco. To a significant extent, the GITI sowed the seeds for Digital Media and Computing revolution currently underway in Louisiana.
<b>1.A* Identification of Key Participants</b>	BOR Office of Sponsored Programs, VPs/VCs of Research, Faculty, Industry leaders, Louisiana Economic Development, Federal Agencies.	BOR Office of Sponsored Programs, VPs/VCs of Research, Faculty, LONI Management Council.	BOR Office of Sponsored Programs, VPs/VCs of Research, State Legislature, Office of the Governor.
<b>1.B Existing and Prospective Strengths which Support 1.A Strategies, Initiatives, Outcomes</b>	LSU Center for Computation Technology; LSU College of Engineering  UL Lafayette School of Computing and Informatics; Center for Advanced Computer Studies; Center for Business and Information Technologies, NSF Center for Visual and Decision Informatics	LSU Center for Computation Technology; LSU College of Engineering  UL Lafayette School of Computing and Informatics; Center for Advanced Computer Studies; Center for Business and Information Technologies, NSF Center for Visual and Decision Informatics	LSU Center for Computation Technology; LSU College of Engineering  UL Lafayette School of Computing and Informatics; Center for Advanced Computer Studies; Center for Business and Information Technologies, NSF Center for Visual and Decision Informatics

	<p>Louisiana Tech’s Louisiana Cyber and Data Consortium; Center for Entrepreneurship in Information Technology</p> <p>UNO’s Computer Science program in cyber security</p> <p>Emerging strengths at Tulane in computing</p>	<p>Louisiana Tech’s Louisiana Cyber and Data Consortium; Center for Entrepreneurship in Information Technology</p> <p>UNO’s Computer Science program in cyber security</p> <p>Expansion of Tulane’s Computing research</p>	<p>Louisiana Tech’s Louisiana Cyber and Data Consortium; Center for Entrepreneurship in Information Technology</p> <p>UNO’s Computer Science program in cyber security</p> <p>Expansion of Tulane’s Computing research</p>
<b>2.A Technology Transfer and/or Commercialization Strategies, Initiatives, Outcomes</b>	<p>Fund translational research opportunities in the area of enterprise computing; especially with enhanced funding allocation to the BOR ITRS program.</p>	<p>Establish a statewide proof-of-concept funding (and centers such as the Proof of Concept Center at Louisiana Tech) and that is vital to transferring the research out of the labs and into the marketplace.</p>	<p>Louisiana should leverage its status as an EPSCoR State and pursue opportunities with the National Science Foundation, and other agencies to pursue the development of a <b><i>Translational Technologies Center</i></b> to work with federal contractors and the Federal Government in the development of proof-of-concept systems. It should be the goal of this effort to result in the development of a FFRDC in Louisiana.</p>
<b>2.A* Identification of Key Participants</b>	<p>BOR Office of Sponsored Programs, VPs/VCs of Research, Faculty, Industry.</p>	<p>Louisiana Economic Development, Louisiana Innovation Council, BOR Office of Sponsored Programs, VPs/VCs of Research,</p>	<p>BOR Office of Sponsored Programs, Louisiana’s Congressional Delegation, Office of the Governor, Presidents/Chancellor of</p>

		Louisiana Venture/Angel fund operators such as Louisiana Fund One/Two, etc.	Louisiana's academic institutions, Federal Agencies.
<b>2. B Existing and Prospective Strengths which Support 2.A Strategies, Initiatives, Outcomes</b>	<p>Louisiana Tech University pursues applied interdisciplinary research activity that links STEM fields with entrepreneurship and technology commercialization: Integrated STEM Education Research Center (College of Engineering and Science); Center for Entrepreneurship and Information Technology (College of Business, and College of Engineering and Science); and Proof of Concept Center (Enterprise Campus)</p> <p>UL Lafayette's <i>AcceleRagin</i> and the Office of Innovation Management</p> <p>LSU's Leveraging Innovation for Technology Transfer (LIFT) Fund</p>	<p>Expansion of activities at LaTech in entrepreneurship and technology commercialization:</p> <p>Further development of UL Lafayette's <i>AcceleRagin</i> and the Office of Innovation Management</p> <p>Further development of LSU's Leveraging Innovation for Technology Transfer (LIFT) Fund</p> <p>Greater integration of universities with efforts of VCs/angel communities throughout the state</p>	<p>Expansion of activities at LaTech in entrepreneurship and technology commercialization:</p> <p>Further development of UL Lafayette's <i>AcceleRagin</i> and the Office of Innovation Management</p> <p>Further development of LSU's Leveraging Innovation for Technology Transfer (LIFT) Fund</p> <p>Greater integration of universities with efforts of VCs/angel communities throughout the state</p>
<b>3.A Workforce Development Strategies, Initiatives, Outcomes</b>	BOR consider support for the creation of undergraduate and graduate courses and degree programs for traditional students in the area of enterprise computing and software development,	BOR should consider supporting the development of flexible-duration certification programs for industry professionals and non-traditional students. These courses should be	Consider development of statewide partnerships with software companies (like IBM, Dell, Oracle. SAP, etc.) and acquire statewide technology licenses for tools for research, instruction and

	with focus of agile software development and cloud computing. BOR should specifically support linkages between research universities, community and technical colleges, and K-12 schools for workforce development in this critical area.	available both in traditional and on-line distance learning delivery models. Further, BOR should dedicate matching funds (1:1 match) to support industry apprenticeship and internship opportunities.	training.
<b>3.A* Identification of Key Participants</b>	BOR Office of Sponsored Programs, VPs/VCs of Research, Louisiana Workforce Commission, Louisiana Economic Development, Louisiana Department of Education, Louisiana Community and Technical College System (LCTCS).	BOR Office of Sponsored Programs, VPs/VCs of Research, Louisiana Economic Development FastStart.	BOR Office of Sponsored Programs, Division of Administration Office of Information Technology, VPs/VCs of Research.
<b>3.B Existing and Prospective Strengths which Support 3.A Strategies, Initiatives, Outcomes</b>	<p>Louisiana Tech partnership with Computer Sciences Corporation (CSC), Louisiana Economic Development (LED) FastStart, and the Cyber Innovation Center; Fenway Xperience</p> <p>GE Capital – UNO partnership with LED FastStart leading to the Software Engineering Apprenticeship Program (SWEAP) which is widely</p>	<p>Strengthening of collaborations at La Tech with CSC, CIC and expansion of the Fenway Xperience</p> <p>Expansion of SWEAP @ UNO</p> <p>Further development at UL Lafayette of Center for Software Excellence, and partnerships with CGI, Perficient, and Enquero</p> <p>Strengthening of LSU's</p>	<p>Strengthening of collaborations at La Tech with CSC, CIC and expansion of the Fenway Xperience</p> <p>Expansion of SWEAP @ UNO</p> <p>Further development at UL Lafayette of Center for Software Excellence, and partnerships with CGI, Perficient, and Enquero</p> <p>Strengthening of LSU's</p>

	<p>regarded as a model public-private partnership.</p> <p>UL Lafayette Center for Software Excellence, and partnerships with CGI, Perficient, and Enquero</p> <p>LSU's partnership with IBM and others</p>	partnership with IBM and others	partnership with IBM and others
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