

MASTER JOINT STUDY AGREEMENT

Agreement No. W0146360

This is Joint Study Agreement ("Agreement") is entered into between the University of Puerto Rico – Mayaguez Campus ("University"), located in Mayaguez, Puerto Rico 00681, and International Business Machines Corporation, a New York corporation ("IBM"), with a research facility located at 1101 Kitchawan Road & Route 134, Yorktown Heights, NY 10598 (each a "Party" and, collectively, the "Parties").

WHEREAS, the University and IBM have entered into discussions regarding certain multi-party, collaborative activities (referred to as the "LA Grid") to be undertaken by the Parties and other LA Grid participants in the field of grid computing;

WHEREAS, as part of the LA Grid collaboration, the Parties desire to engage in joint study projects into certain specific technical aspects of grid computing (the "Projects" and each a "Project");

WHEREAS, the Parties desire to set forth the terms and conditions that will govern the Projects;

NOW, THEREFORE, the Parties agree to the following:

1. Scope of Work

1.1 IBM and University will collaborate as described in the Framework Statement of Work (hereinafter "Framework") attached hereto as Appendix "A" to this Agreement. IBM and University will agree to specific projects in furtherance of the Framework by executing specific Project Statements of Work. When signed by authorized representative of both Parties, each Project Statement of Work (hereinafter, "Statement of Work") shall be an appendix to, and part of, this Agreement.

1.2 Subject to the terms of Articles 5.2 and 8.2, the Parties may publish the results of any Project in scientific journals or periodicals.

1.3 Except as may be expressly agreed to in a Statement of Work with respect to a Project, each Party will bear its own expenses in connection with this Agreement and the Projects.

1.4 A Statement of Work for a Project may designate non-Party participant(s) in the LA Grid as a participant in that Project.

2. Technical Coordinators

2.1 The Technical Coordinators for the Projects will be Jaime Seguel, for University, and Basil Smith, for IBM. Each Technical Coordinator will be responsible for exchanging information with the other Party, coordinating any visits and arranging all other matters pertinent

to this Agreement. Either Party may change its Technical Coordinator by giving written notice to the other Party. A Statement of Work may designate a Technical Coordinator for the described Project.

2.2 "University Representative(s)" agreed to by the Technical Coordinators may visit the IBM Thomas J. Watson Research Center from time to time under this Agreement. IBM will give University Representatives access to IBM's facilities as is necessary or appropriate to conduct the scope of work. Such University Representatives must acknowledge and comply with IBM's procedures and practices as set forth in Appendix A, "Activity on IBM's Premises".

3. Term and Termination

3.1 Unless terminated earlier, this Agreement will begin on December 15, 2005 and expire on December 14, 2008. Either party may terminate this Agreement upon sixty (60) days' written notice to the other party.

4. Copyrights

4.1 "Software" means computer programs, computer program changes, computer program enhancements, and/or any documentation related to computer programs) which is furnished or developed by a Party in the performance of this Agreement. Software excludes commercially available software, which will be provided under a separate agreement. Each Party agrees to provide the other Party with one copy of any Software as it becomes available.

"Materials" means Software and other copyrightable materials furnished or developed by either Party under this Agreement.

"Internal Use Only Materials" are Materials in which the furnishing or developing Party grants the other Party an irrevocable, nonexclusive, worldwide, and fully paid-up license to use, execute, reproduce, and distribute internally within the receiving Party's organization. Such license is subject to the terms of existing third party License Agreement(s) if any, including any rights of the federal government.

91: "Unrestricted Materials" are Materials in which the furnishing or developing Party grants the other Party an irrevocable, nonexclusive, worldwide, and fully paid-up license to use, execute, display, reproduce, perform, disclose, prepare derivative works from, and distribute and transmit (internally and externally), and to sublicense others to do any or all of the foregoing. Such license is subject to the terms of existing third party License Agreement(s) if any, including any rights of the federal government.

4.2 Each Statement of Work may specify the Materials to be developed or furnished under that Statement of Work, and may further designate that such Materials shall be Internal Use Only Materials, Unrestricted Materials, or shall be subject to other licensing terms and conditions set forth in such Statement of Work. In the event that certain Materials are provided by one Party to the other Party under this Agreement and such Materials are not described in a Statement of Work or are not specifically designated as being Internal Use Only or Unrestricted, or as having

other specific licensing terms and conditions in a Statement of Work, then the terms and conditions set forth in Articles 4.3 or 4.4 shall apply, as applicable.

4.3 University grants to IBM an irrevocable, nonexclusive, worldwide, and fully paid-up license for any Materials furnished or developed by University under this Agreement. This license includes the right to use, execute, display, reproduce, perform, disclose, prepare derivative works from, and distribute and transmit (internally and externally) such Software and copyrightable materials and derivative works, and to sublicense others to do any or all of the foregoing.

4.4 IBM grants to University an irrevocable, nonexclusive, worldwide and fully paid-up license to use, execute, reproduce and distribute internally, any Materials furnished or developed by IBM under this Agreement subject to the terms of the existing third party License Agreement(s), if any.

5. Inventions

5.1 "Invention" means any idea, design, concept, technique, invention, discovery or improvement, whether or not patentable, conceived or first reduced to practice solely by one or more employees of a party hereto ("Sole Invention"), or jointly by one or more employees of one Party with one or more employees of the other Party ("Joint Invention"), in the performance of work under this Agreement.

5.2 Each Party shall promptly provide to the other Party a written description of each Invention. The other Party agrees to delay making public, by publication or otherwise, until the earlier of (1) the first filing of a patent application claiming the Invention by the owning Party or (2) six months after the date the Invention is disclosed to the other Party, any Invention for which the disclosing Party has decided, or is in the process of deciding to seek patent protection.

5.3 Any Sole Invention shall be the property of the inventing Party, subject to a license granted to the other Party of the scope set forth in Article 5.4 for such Sole Invention and all patents issued on it. Any Joint Invention shall be jointly owned, title to all patents issued thereon shall be joint, all expenses (including those related to preparation, prosecution and maintenance) shall be jointly shared (except as provided below), and each Party shall have the right to license third parties thereunder without need for consent from or accounting to the other Party. Where one Party elects not to share equally in the expenses for a Joint Invention, the other Party shall have the right to seek or maintain such protection for such Joint Invention at its own expense and shall have full control over its preparation, prosecution and maintenance, even though title to any issuing patent will be joint.

5.4 All licenses for Sole and Joint Inventions granted to University and IBM under this Article 5 shall be worldwide, irrevocable, nonexclusive, nontransferable, and fully paid-up, and shall include the right to make, have made, use, have used, lease, sell, offer to sell, import and/or otherwise transfer any product, and to practice and have practiced any method. All licenses granted to University and to IBM in this Article shall include the right of the grantee to grant

revocable or irrevocable sublicenses to its Subsidiaries, such sublicenses to include the right of the sublicensed Subsidiaries correspondingly to sublicense other Subsidiaries.

5.5 "Subsidiary" shall mean a corporation, company, or other entity:

- i) more than 50% of whose outstanding shares or securities (representing the right to vote for the election of directors or other managing authority) are, now or hereafter, owned or controlled, directly or indirectly, by a Party, but such corporation, company, or other entity shall be deemed to be a Subsidiary only so long as such ownership or control exists; or
- ii) which does not have outstanding shares or securities, as may be the case in a partnership, joint venture or unincorporated association, but more than 50% of whose ownership interest representing the right to make the decisions for such entity is now or hereafter, owned or controlled, directly or indirectly, by a party hereto, but such corporation, company or other entity shall be deemed to be a Subsidiary only so long as such ownership or control exists.

5.6 The Parties may agree to invention provisions different than those set forth in this Section 5, if Inventions and such invention provisions shall be specifically set forth in writing in the particular Statement of Work to which those invention provisions relate. If the Statement of Work does not specifically provide for alternative invention provisions, then the invention provisions set forth in this Agreement shall apply.

5.7 If a Statement of Work involves parties other than the Parties to the Agreement, the Statement of Work will set forth the respective rights of all Parties to Inventions developed pursuant to the Statement of Work.

6. Warranties, Disclaimers and Limitation of Liabilities

6.1 The University represents and warrants that it is the original author of any Software provided to IBM, or has clearly identified to IBM in writing any and all Software components that are owned by, or licensed from, third parties, public sources or that contain open source code.

6.2 EXCEPT AS EXPRESSLY PROVIDED IN THIS AGREEMENT, NEITHER PARTY MAKES ANY WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE SOFTWARE, COPYRIGHTABLE MATERIALS, SERVICES, AND SAMPLES, MATERIALS, OR OTHER DELIVERABLES SUPPLIED UNDER THIS AGREEMENT, (INCLUDING ANY WARRANTY ABOUT THE COMPLETION OF ANY PROJECT). THE PARTIES EXPLICITLY DISCLAIM THE WARRANTY OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

6.2 Neither Party will be liable for any consequential damages, lost profits, lost savings, loss of anticipated revenue, or any exemplary, punitive, special or indirect damages, even if advised of their possibility.

7. Confidentiality

7.1 Except as provided in Article 5.2 regarding non-disclosure of Inventions, each Party agrees not to disclose any information to the other party which is considered by the disclosing Party to be confidential. Each Party shall be free to use and disclose any information provided by the other Party for any purpose, subject to valid patent rights and copyrights.

8. General Provisions

8.1 Except as explicitly provided in this Agreement, neither Party grants any licenses, either directly or indirectly, by implication, estoppel or otherwise, to either Party under any patent, copyright or other intellectual property right of the other Party.

8.2 Both Parties agree that they will not seek to invoke the Cooperative Research and Technology Enhancement (CREATE) Act of 2004, 35 U.S.C. Section 103(c), without first seeking prior permission of the other Party.

8.3 With the exception of use in internal University reports, this Agreement does not confer any right to use in advertising, publications or promotional activities any name, trade name, trademark or other designation of either Party (including any contraction, abbreviation or simulation of any of the foregoing). Each Party agrees not to refer to this Agreement or its terms in any such activities without the express written approval of the other Party.

8.4 Each Party agrees to comply and to reasonably assist the other in complying with applicable U.S. federal, state and local laws, regulations and ordinances as they apply to this Agreement. Further, Technology, Software, including copyrightable materials, services, samples or other deliverables supplied under this agreement are subject to United States export/reexport control laws and regulations. Each Party agrees to comply with such laws and regulations, including complying with the terms of the U.S. License authorizing the furnishing party to furnish such Technology, Software, copyrightable materials, services, samples or other deliverables to the other Party.

js: Unless authorized by appropriate government license or regulations, each Party Agrees not to export, directly or indirectly, any Technology or Software, provided Under this Agree or their direct product, to any countries or their nationals, other than the following: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, and the United Kingdom.

8.5 This Agreement does not create a joint venture, partnership, employment relationship or agency relationship between the Parties.

8.6 Neither Party may assign, or otherwise transfer, its rights or delegate its obligations under this Agreement without prior written consent of the other Party. Any attempt to do so is void.

8.7 Except for claims arising out of Article 5, neither Party may bring an action, regardless of form arising out of the performance of this Agreement, more than one year after the cause of action has accrued.

8.8 Each Party represents that it has appropriate agreements with its employees or others whose services the Party may require, sufficient to enable it to comply with all the terms of this Agreement.

8.9 University is not obligated and will not assume any obligation which calls for a disposition of rights which is inconsistent with the terms of this Agreement.

8.10 If any provision of this Agreement is held to be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining terms shall in no way be affected or impaired as long as the intent of the Parties can be preserved.

8.11 This Agreement is governed by the laws of Puerto Rico. Any proceedings to resolve disputes relating to this Agreement will be brought in a U.S. federal court in Washington, D.C. if there is jurisdiction. The parties expressly waive the right to trial by jury in any matter which arises under this Agreement.

8.12 Any rights and obligations which by their nature survive and continue after the expiration of this Agreement shall survive and bind the Parties and their successors and assigns, until such obligations are fulfilled.

8.13 Any amendment or modification of this Agreement shall be in writing and shall be signed by authorized representatives of the Parties.

gs'. 8.14 This Agreement, including its Appendices, is the complete and exclusive agreement between the parties regarding its subject matter and supersedes any prior oral or written communications or understandings between the Parties related to its subject matter.

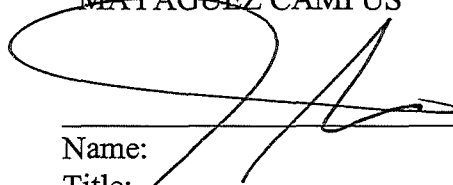
By signing below, the Parties agree to the terms of this Agreement.

INTERNATIONAL BUSINESS
MACHINES CORPORATION



Pete Martinez
Vice President, Business Consulting Services
General Manager, IBM South Florida
Date: Dec 12, 2005

UNIVERSITY PUERTO RICO -
MAYAGUEZ CAMPUS



Name:
Title:

Date: Dec 12, 2005

APPENDIX A

ACTIVITY ON IBM PREMISES

This Appendix provides terms that supplement those of the Agreement. These terms apply to University and University's Representatives when engaged in any activity on IBM's premises.

1.0 Access to Premises

- 1.1 Identification: University will provide IBM with the names of University's Representatives who require access to IBM's premises for the work to be performed under this Agreement. IBM permits access to its premises only to persons who have a valid identification badge. IBM issues a separate badge for each individual. IBM requires badges to be visibly displayed at all times while on IBM's premises. A badge that is not used for one month will be deactivated and access to IBM's premises will be denied. To reactivate a badge, University must submit a new request for a badge.
- 1.2 Sign-in: University and University's Representatives will comply with all local sign-in and sign-out requirements.
- 1.3 Access: Access to IBM's premises is limited to the work locations, cafeterias, rest rooms, and in the event of a medical emergency, IBM's medical facilities.
- 1.4 IBM Closings: Access to IBM's premises is denied on days designated as planned closings or emergency closings.
- 1.5 Non-Regular Hours: Access to IBM's premises during non-regular hours (before 7:00 a.m. and after 6:00 p.m. Monday through Friday, weekends, and IBM-designated holidays) must be approved by IBM.
- 1.6 Vehicles: Parking is not allowed in visitor, customer, or reserved spaces. Improperly parked vehicles may be towed at University's expense.
- 1.7 Emergency Procedures: University and University's Representatives will comply with IBM's local policies regarding emergency planning.

2.0 Personnel

- 2.1 University Representatives: University Representatives are not considered IBM employees. University will supervise University's Representatives on University's own premises and at University's own expense. University's Representatives are not eligible to participate in IBM benefit plans or activities, such as IBM Club events, bulletin boards, IBM employee meetings or recognition events.

2.2 Reassignment: IBM may request that University permanently remove any of University's Representatives from IBM's premises. IBM may request University not to reassign these Representatives to future work at IBM.

3.0 **Conduct on Premises**

3.1 Other Business Activities: Business activities that are not related to University's performance under the Agreement (such as interviews, meetings, hirings, or dismissals) may not be conducted on IBM's premises. University and University's Representatives may send or receive only IBM-related mail through IBM's mail system. University and University's Representatives may access the internet through IBM only for work related to University and University's Representatives work under the Agreement.

3.2 IBM Property: Personal use of IBM's property or assets (such as tools, test equipment, terminals, copiers, systems or telephones) is not allowed. Upon request, University will reimburse IBM for any unauthorized telephone calls.

3.3 Solicitations: University or University's Representatives will not sell, advertise, or market any products or distribute printed, written or graphic materials on IBM's premises.

3.4 Smoking: University's Representatives will comply with IBM's local policies regarding smoking on IBM's premises.

3.5 Weapons: Weapons of any kind are not permitted on IBM's premises or in any work environment. Access to IBM's premises including parking areas and grounds will be denied to anyone who has a weapon in their possession. University will be required to remove University's Representatives who violate this policy.

3.6 Drugs and Alcoholic Beverages: IBM prohibits the manufacture, sale, distribution, possession or use of alcoholic beverages, or controlled substances for non-medical reasons on its premises. Access to IBM's premises will be denied to anyone impaired by, or under the influence of, such substances or beverages. University may be required to remove University's Representatives who violate this policy.

3.7 Hazardous Materials: University and University's Representatives are not permitted to bring or use hazardous materials on IBM premises, except as authorized by IBM.

3.8 Safety: University and University's Representatives will comply with all IBM's local policies regarding safety. University must promptly report to IBM any accident occurring on IBM's premises. University will provide IBM with a copy of the accident report.

4.0 **Security of IBM's Assets**

IBM's equipment and assets remain the property of IBM. University and University's Representatives will: a) use them only on IBM's premises unless

otherwise specified in the Agreement; b) use them only for the purposes of the Agreement; and c) pay for any damage to them resulting from University and University's Representatives use, not including normal wear and tear. University and University's Representatives will not: a) alter or move them without IBM's prior written permission; and b) permit any liens or attachments to be filed against them.

5.0 Sexual Harassment

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Sexual harassment is unwelcome sexual conduct that has the purpose or effect of unreasonably interfering with an individual's work performance or that creates an offensive or hostile work environment. University will inform University's Representatives in writing that IBM is committed to providing a work environment free from sexual harassment. All incidents of sexual harassment should be reported to IBM by calling IBM Corporate Security at tieline 8-641-4885 or (914) 499-4885 between 8:30 a.m. and 4:30 p.m. (EST). All complaints will be investigated promptly and dealt with appropriately.

Appendix B

Date: December 12, 2005

Mr. XXX XXXXX
University of Puerto Rico - Mayaguez
P.O. Box 248294
Coral Gables FL 33124

Reference Agreement No.:
Term: 12/01/05-11/30/08
IBM Manager Responsible: T. Basil Smith
Userid: Yes/No

Dear Mr. XXXXX:

You acknowledge that you have read the terms of the above referenced Agreement. By signing below, you agree to comply with the terms of the Agreement (and any subsequent amendment thereto) regarding the disposition of intellectual property rights.

While the Agreement identifies IBM information of a confidential nature, you may be exposed to additional IBM confidential information if you visit IBM. You will be required to hold any information identified and/or marked IBM Confidential in trust and confidence for IBM. Although you are not considered an employee of IBM, you will be required to comply with the Computer Security Guidelines for IBM Employees, (Document ITCS300), attached hereto. Your responsibilities for the protection of IBM's information and assets are set forth in the attached copy and will be further explained to you, as necessary, by the IBM Manager responsible for this Agreement. Additionally, you will be required to comply with all safety rules in the area in which you work.

It is expected that in the performance of services hereunder you will have access to certain data which is controlled by the U.S. Export Administration Act of 1979, as amended (and its implementing regulations, as amended). This Act prohibits the export of certain types of technical data to specified countries (including, but not limited to, Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Cambodia, Cuba, Estonia, Georgia, Iran, Iraq, Kazakhstan, Kyrgyzstan, Laos, Latvia, Libya, Lithuania, Moldova, Mongolia, North Korea, People's Republic of China, Romania, Russia, Sudan, Syria, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, and Vietnam.) You agree to comply with such Act and hereby give written assurance that you will not export or re-export any such data or give access to such data to nationals of the above listed countries except as permitted by such Act.

Except as explicitly provided for in the Agreement, IBM does not wish to receive any confidential information from you. It is understood that any information received by IBM will not be of a confidential nature to you or any third party, nor will IBM's receipt of such information establish a confidential relationship of any kind.

Please sign below to concur with the above, and return the second original of this letter to Patrick Canavan, who will administer the Agreement, at T. J. Watson Research Center, IBM, 1101 Kitchawan Road, Route 134, Yorktown heights, NY 10598, phone number 914 945-2057, fax number 914 945-2460, and e-mail address canavan@us.ibm.com.

Accepted and Agreed to:

Date:

Dec 12, 2005

Project Number to be charged _____

IBM Manager Serial No.

Date: _____

(to authorize Userid)

STATEMENT OF WORK #1 – Building a Framework

Latin American Grid

The following section describes the mission, goals, responsibilities and resource commitments to the Latin American Grid (“LA Grid”), a collaborative effort between IBM Corporation, and several participating research and educational institutions (each a “LA Grid Member” or “Member”), including the University of Puerto Rico – Mayaguez Campus (the “University”).

I. Mission and Goals

The mission of the LA Grid is to become a national driving force for Hispanic/minority serving Information Technology (IT) and Computer Science (CS) education and a world class research and development center for grid-enabled autonomic computing and systems. It is the objective of the LA Grid Members that the LA Grid shall represent the largest alliance and producers of top Hispanic Technical Professionals in IT and computing and a major center for continuing education of IT industry employees. The LA Grid will demonstrate its capacity for world-class research in grid-enabled and autonomic computing research and systems by creating a global grid research infrastructure which will interconnect researchers from the US, South America, the Caribbean, and Europe. The LA Grid will be a global collaboration for showcase applications in healthcare, grid-based communications, Bio-science, nano-research and hurricane mitigation, as well as, promote the LA Grid’s core research efforts and used to recruit other research institutions.

University and IBM agree to develop the LA Grid through the following initiatives to:

1. *Support world-class research and education programs and initiatives in computing and IT by:*
 - a. Jointly pursuing funding and resource support from federal, state and local governments, as well as from other appropriate sources, to support the operation and growth of the LA Grid.
 - b. Creating research partnerships and collaborations between the University’s faculty and IBM researchers and experts, and jointly developing intellectual properties through collaborative R&D.
 - c. Using the collaborative R&D to stimulate advanced education and training of Hispanic and other students in computing and IT.
2. *Significantly increase the number and quality of Hispanic students, as well as the student groups, pursuing BS/MS/Ph.D. degrees in computing and IT at University by:*
 - a. Jointly marketing/recruiting top Hispanic/minority students currently attending High School, Community College or other Institutions;
 - b. Developing special advanced degree programs for IBM employees to meet IBM training needs;
 - c. Motivating students with IBM mentoring, research and internship experiences and IBM technology training.
3. *Develop infrastructure resources like laboratory facilities, computer hardware and software, technology training and support to support the joint research and education initiatives, as well as to establish shared research/education infrastructure and test bed at University for the LA Grid.*
4. *Expand the LA Grid alliances to include other major Hispanic/minority serving institutions.*

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II. Responsibilities and Commitments

The following list identifies the LA Grid's functional aspects and leads. Leads are responsible for providing a detailed execution plan and resources for their respective areas. LA Grid operations will commence upon the date of the last signatory of the Agreement, and will require specific deliverables and resources to be in place as noted.

1. Facility Name, Alliance, Governance and Operations

- a. The name of the initiative shall be the *LA Grid*. LA Grid Members may use the name to market the LA Grid research, education and other business activities.
- b. Additional LA Grid Members must enter into a Master Joint Study with IBM to participate in LA Grid's activities.
- c. A Board of Governors will be established to provide oversight and direction for the LA Grid, subject to the Strategic Plan. IBM will chair the Board and each LA Grid Member institution shall a seat on the Board. .
- d. A principle investigator (PI) or project manager (PM) will be identified from each Member as the point of contact for all official business with each LA Grid member.
- e. The PI/PM will be solely responsible for operations and execution of this Joint Study.

2. Research, Funding and Promotion

- a. IBM and University will jointly identify researchers in their respective institutions who can effectively collaborate on the R&D thrusts of the LA Grid. These researchers will spend significant time at each others facilities to conduct LA Grid related research.
- b. University will promote the technology development of a distributed grid infrastructure, housed at Member institutions and at the T. J. Watson Research Center .
- c. IBM and University will jointly pursue federal and state funding opportunities for LA Grid, including NSF, NIH, NIST, DoD and the state funding opportunities like the State of Florida 2006 Center of Excellence Proposal and Scripps Research Institute.
- d. IBM will lead the effort to provide the LA Grid with industry partners and/or clients who can enhance research efforts or provide a vehicle for funding.
- e. IBM will lead the effort to promote and market the LA Grid. This includes the inaugural event and other ongoing marketing initiatives.

3. Student Participation

- a. University will identify XXX students to participate in the LA Grid's activities.
- b. IBM will provide executives to participate in one-on-one student mentoring program for up to eight (8) student mentees.
- c. IBM will provide eight (8) internships and research experiences at IBM facilities.
- d. IBM will provide five (5) guest lectures per year at University given by senior executives and/or researcher.
- e. University will identify and streamline participating student job placement process for IBM.
- f. University and IBM will jointly recruit top Hispanic high school/community college students in the local communities to University IT/Computing degree programs.

4. Infrastructure and Services

- a. University will provide technical input on infrastructure equipment needs.
- b. University will provide renovated laboratory, office and server room space for LA Grid personnel and equipment.
- c. IBM will provide the University with the initial computer software to support its research and education activities.
- d. IBM will provide initial start-up technology support for the LA Grid on an as-needed basis, and the University will provide on-going maintenance and technical support for the computer hardware and software.

5. Strategic Plan

- a. IBM shall develop and maintain a strategic plan (“Strategic Plan”) on behalf of the LA Grid which outlines the LA Grid’s research and educational scope, goals, expected outcomes, audience, marketing, principals and uniqueness.
- b. The document will describe the potential funding sources and recurring funding needs.
- c. The plan shall be periodically reviewed by the Board of Governors.

III. Scope of Work/ Projects

The LA Grid will serve as a test bed for research endeavors into grid and distributed computing, and into applications that will be highly leveraged by grid computing. Using this grid, the Members will investigate algorithms, technologies and associated software designs and implementations required to:

- 1. Manage large-scale computing farms which may include supercomputers, clusters, and desktop systems distributed over a variety of networks with differing quality of service aspects. Research topics to explore include optimizing distribution of processes (workload), identifying available resources, and development of improved algorithms to determine cost/benefit ratio, optimal job placement, and performance characteristics.
- 2. Investigate security concerns needed to provide role based access to distributed data and other resources associated with the grid systems and applications running on them.
- 3. Provide quality of service requirements of domain specific applications including database retrieval, animation rendering, fault tolerance, fail-over, and other QOS concerns which impact the quality of the user experience.
- 4. Manage large-scale (terabyte to petabyte) data sets used in, but not limited to, domain specific areas of hurricane mitigation and healthcare information systems and telemedicine systems. This includes techniques to distribute the data for optimal storage and retrieval and to understand their impact on performance characteristics such as retrieval time, fail-over, and other factors that define a robust distributed or grid computing system.

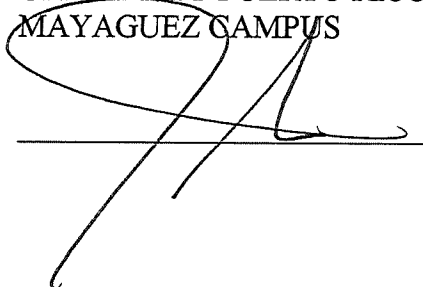
It is expected that researchers involved will meet at IBM research facilities and at their respective research and educations institutions frequently, as often as every few months, to interact face-to-face as required by their research efforts. Teams will consist of one or more university faculty, staff and students, and IBM researchers, managers, and employees.

The Parties may expand upon and add to the Scope of Work/ Project by way of addendum(s) signed by the parties to such addendum, which when signed by such addendum-parties, shall be part of the Statement of Work and the applicable Joint Study Agreement.

INTERNATIONAL BUSINESS
MACHINES CORPORATION



UNIVERISTY PUERTO RICO -
MAYAGUEZ CAMPUS





CONFIDENTIAL DISCLOSURE AGREEMENT

This Agreement will provide protection for the information to be exchanged between us which we do not wish to become public ("Information") while maintaining our ability to conduct our respective business activities. Each of us agrees that the following terms shall apply when one of us ("Discloser") discloses Information to the other ("Recipient") under this Agreement.

1. Disclosure: Each time one of us wishes to disclose specific Information to the other, or wishes to engage in multiple disclosures relating to a specific subject matter, Discloser will issue a supplement to this Agreement ("Supplement") before disclosure. The Supplement will contain the initial and final disclosure dates, a non-confidential description of the Information to be disclosed and any additional or different terms and conditions. The Supplement must be signed by the Discloser and the Recipient.

Information may be disclosed by: (i) presentation; (ii) delivery; (iii) authorized access, such as to a data base; or (iv) any other express means. Information must be identified as confidential at the time of disclosure, and all material containing Information must have a restrictive marking. The Discloser shall not disclose any Information not described in a signed Supplement or which Discloser does not have the right to disclose to the Recipient.

Disclosure may take place through the Discloser or its Related Companies. A Related Company is any corporation, company, or other entity which: (i) is Controlled by a party hereto; (ii) Controls a party hereto; or (iii) is under common Control with a party hereto. For this purpose, "Control" means that more than fifty percent (50%) of the controlled entity's share or ownership interest representing the right to make decisions for such entity are owned or controlled, directly or indirectly, by the controlling entity. An entity is considered to be a Related Company only so long as such ownership or control exists.

2. Protection: For two (2) years from the date of disclosure, the Recipient will use the same care and discretion to avoid disclosure of the Discloser's Information as the Recipient uses with its own similar information it does not wish to disclose. Subject to this obligation, the Recipient may use Discloser's Information for any purpose.

3. Exceptions: The Recipient may disclose Discloser's Information to: (i) its employees and contractors, and employees and contractors of its Related Companies, who have a need to know; and (ii) any other party with the Discloser's prior written consent. Upon request of the Recipient, the Discloser may make disclosure directly to such parties on behalf of the Recipient. Prior to any such disclosure or such request by Recipient, the Recipient must have an appropriate agreement with any such party sufficient to require the party to treat Information in accordance with this Agreement. The Recipient may disclose Information if required by law, but must give the Discloser reasonable prior notice to allow the Discloser an opportunity to obtain a protective order.

Notwithstanding the foregoing, no obligation shall apply to Information that is: (i) already rightfully in the Recipient's possession or rightfully received by the Recipient without a nondisclosure obligation; (ii) developed independently by the Recipient; (iii) publicly available when received, or thereafter becomes publicly available through no fault of the Recipient; (iv) disclosed by the Discloser without a signed Supplement as required by Section 1; (v) disclosed by the Discloser to a third party without a non-disclosure obligation; or (vi) inherently disclosed by the Recipient in the use, distribution or marketing of any product or service.

4. Disclaimers: DISCLOSER PROVIDES INFORMATION SOLELY ON AN "AS IS" BASIS.

Neither this Agreement, nor any disclosure of Information hereunder, in any way: (i) grants to either of us any right or license under any copyright, patent, mask work or trademark now or hereafter owned or controlled by the other; (ii) obligates either of us to disclose or receive any Information, perform any work, enter into any license, business engagement or other agreement; (iii) limits either of us from developing, manufacturing or marketing products or services which may be competitive with those of the other; (iv) limits either of us from assigning or reassigning employees in any way; (v) creates any joint relationship or authorizes either of us to act or speak on behalf of the other; or (vi) limits either of us from entering into any business relationship with any other parties.

5. General: Neither party may assign or otherwise transfer our rights or delegate our duties or obligations under this Agreement without prior written consent of the other. Any attempt to do so is void.

The Recipient must comply with all applicable United States and foreign export laws and regulations.

Only a written agreement signed by both of us can modify this Agreement.

Either of us may terminate this Agreement by providing one month's written notice to the other. Any provisions of this Agreement which by their nature extend beyond its termination remain in effect until fulfilled and apply to our respective successors and authorized assigns.

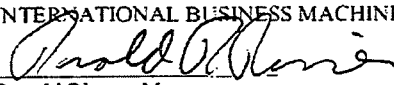
If there is a conflict between the terms of this Agreement and a Supplement, the terms of the Supplement will prevail.

This Agreement will be governed by the substantive law of the State of New York.

Any reproduction of this Agreement by reliable means will be considered an original of this Agreement.

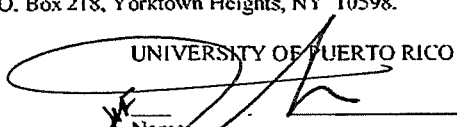
This Agreement, including any Supplements, is the complete and exclusive agreement regarding our disclosures hereunder. Please return one signed original to Patrick Canavan, IBM Corporation, Room 39-213, P.O. Box 218, Yorktown Heights, NY 10598.

INTERNATIONAL BUSINESS MACHINES CORPORATION


Ronald Rinner, Manager,
Business and Government Relations

Date: 11/11/05

UNIVERSITY OF PUERTO RICO - MAYAGUEZ


Name: _____
Title: _____

Date: December 15, 2005

**Agreement No. W0146380
Supplement No. 1**

Confidential Disclosure Agreement Supplement

The terms of Agreement No. W0146380, as modified by any terms stated below, shall apply to the following disclosures of Confidential Information:

Initial Disclosure Date: November 21, 2005

Final Disclosure Date: March 21, 2006

Discloser: IBM Corporation	and	University Puerto Rico - Mayaguez
P.O. Box 218		Mayaguez, Puerto Rico
Yorktown Heights, NY 10598		00681

Nonconfidential Description of Discloser's Information:

IBM:

Details of ongoing research projects involving grid and autonomic computing across four main categories: scheduling / workload virtualization, information virtualization, application development and resource management / provisioning.

UPRM:

Details of ongoing research in computer science sponsored by University professors and its relevance to grid oriented technologies.

Purpose of Disclosure: To understand areas of joint collaboration further, to conceptualize specific project proposals and to outline whitepapers for funding consideration to both IBM and government agencies.

All disclosures of Information shall be made through the parties' Technical Coordinators who are: For University: Jamie Seguel For IBM: Jean Pierre Prost

Additional or different terms and conditions for Information disclosed under this Supplement. The following modifications are for purposes of this Supplement only:

1. Section 2: Replace Section 2 with the following:

For three (3) years from the date of disclosure, the Recipient will use the same care and discretion to avoid disclosure of the Discloser's Information as the Recipient uses with its own similar information it does not wish to disclose. Recipient shall use Discloser's Information only for the

purpose for which it was disclosed or otherwise for the benefit of Discloser. On the Final Disclosure Date, Recipient shall return Information to Discloser or certify to Discloser that it has been destroyed. Recipient shall be free to use any ideas, concepts, know-how or techniques contained in Discloser's Information for any purpose, subject to valid copyright and patent rights, and subject to Recipient's obligation of non-disclosure.

2. Section 5: Replace the second paragraph of the Section with the following:

Each party agrees to comply and to reasonably assist the other in complying with applicable U.S. federal, state and local laws, regulations and ordinances as they apply to this Agreement. Information and copyrightable materials supplied under this agreement are subject to United States export/reexport control laws and regulations. Each party agrees to comply with such laws and regulations, including complying with the terms of the U.S. License authorizing the furnishing party to furnish such Information and copyrightable materials to the other party.

Unless authorized by appropriate government license or regulations, each party agrees not to export, directly or indirectly, any Information and copyrightable materials provided under this Agreement or their direct product to any countries or their nationals, other than the following: Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Turkey and the United Kingdom. Each party acknowledges that these obligations survive the termination of this Agreement.

The Agreement, amended by this Supplement, is the complete and exclusive agreement regarding disclosures thereunder. Please return a signed copy of this Supplement to Patrick Canavan, IBM Corporation, Room No. 39-213, P.O. Box 218, Yorktown Heights, NY 10598, fax No. (914) 945-2460.

Agreed to:

JR
INTERNATIONAL BUSINESS
MACHINES CORPORATION

By: Ronald R. Rinner
Ronald R. Rinner, Manager
Business and Government Relations

Date: 11/11/05

UNIVERSITY PUERTO RICO -
MAYAGUEZ CAMPUS

JTF By: _____
Name: _____
Title: _____

Date: December 15, 2005



College of Engineering
University of Puerto Rico
PO BOX 9040
Mayagüez, PR 00681-9040

5-31-05
1599
REGISTRO DE CONTRATOS
TOMO 16 PAGINA 19
CONTRATO NUM. 2009-000 113

PROGRAM OBJECTIVES

The objectives of the Cooperative Education work-study agreement is to provide Engineering students with an integrated program of work and training in engineering fields of study. IBM Corporation and the School of Engineering of the University of Puerto Rico at Mayagüez seek to derive benefits from cooperative efforts in developing highly qualified professional engineers.

ADMINISTRATION OF THE PROGRAM

IBM Corporation and the Cooperative Education Office of the School of Engineering will work closely together to insure maximum program effectiveness. Both the cooperative industry and the University will designate a Coordinator who will be primary contact for all matter involving the combined agreement are followed, will also confer periodically regarding any new problems, changes, or arrangements that may e deemed necessary as the program develops. Subsequent arrangements will be based on their mutual agreement on what actions are required.

SELECTION, ELIGIBILITY AND BENEFITS

Students can apply for participation in the Cooperative Education Program when they have satisfactorily completed the requirements set by the cooperating industry's regulations. Students are eligible for selection through this program when they are officially accepted as Cooperative Education Students at the University of Puerto Rico and have completed at least their third academic year of study with a general grade point average of 2.50 or more on a 4.00 scale.

Students participating in the Cooperative Education Program should be provided competitive pay benefits in accordance with the standards established by the industry for any consultant and this salary will not be less than the minimum salary required by the Cooperative Education Program Office.

Such salary should be representative of the education and work experience of the student. The following benefits may be established by the cooperating industry to encourage participation: (Applied only to Companies located in the United States)

✍ **Major Medical, Dental and Life Insurance**

✍ *Reimbursement for transportation expenses incurred by the student between school and the work location.*

✍ *Assistance in identifying reasonable housing for the duration of the work assignment.*

All applicants will be considered for employment without regard of race, creed, color, sex or national origin. However, only U.S. citizens or residents can be considered.

The pattern of work and study will be for at least a semester and a summer designed to conform to the semester or summer of the academic calendar of the university.

Work Assignment Procedure:

*Initial work assignments at **IBM Corporation** will recognize the student's level of academic attainment, and progressively more responsible assignments will be made for each subsequent work period. In addition, the assignments will be consistent with the career objectives of the student whenever possible.*

The student's first two months of employment will be considered a trial period during which strengths and weaknesses are carefully observed and assessed and needed help is given as required to improve aspects of the student's performance.

Promotion Procedures

Students are eligible for the selection through this program when they are officially accepted as Cooperative Education Students at the University and have completed at least their third academic year of study. They will enter a Student Trainee grades as such times as they have satisfactorily completed the requirements set by the cooperating industry's regulations.

9. Quality of Work and Study for Retention

The Coordinators will insure that the quality of the both work and the study undertaken by cooperative program participants is maintained at a level sufficient to merit continuing participation on the program. Specifically, students must maintain a grade point average of 2.5 or more in academic studies and must perform satisfactorily in related work assignments to remain in the program. When performance is unsatisfactory or established academic standards are not maintained, students may be removed for the program. The Cooperative

Education Program office will initiate the removal action, but it will only do that after written certification of failure is received from the participating company.

Procedures at the End of Program:

A cooperative Education service does not commit either the cooperating industry or the student to employment after graduation.

General:

This agreement becomes effective upon the date the company IBM Corporation and the Cooperative Education of the University of Puerto Rico at Mayagüez, signs it. The agreement will remain in force until either party notifies the other party of their wish to change, amend or cancel the agreement with at least 30 days notice.

Marilyn Mayo
Program Manager, Cooperative
Education and Internship
IBM University Recruiting & Relations

Marilyn Mayo
Company Authorized Coop
Address and Telephone:

3039 Cornwallis Drive
Research Triangle Park, NC 27709

Date: 5/31/05

Alfonso P. Llanos

Director Engineering Coop Program
PO BOX 9040
IBM Dept YL5A B002
Mayagüez, PR 00681-9040
(787) 265-3823/Fax: (787) 833-6965

Date: Sept 18/06

Jorge Ivan Velez Arocho, Ph.D.
Chancellor
University of Puerto Rico
Mayaguez Campus

Date: Sept 12, 2006

