

DATED this 17th day of April 2012

MASTER RESEARCH COLLABORATION AGREEMENT

THIS MASTER AGREEMENT is made the 17th day April 2012 between **COLLEGE OF ENGINEERING of NATIONAL TSING HUA UNIVERSITY, TAIWAN** having its principal office at 101, Section 2, Kuang-Fu Road, Hsinchu, Taiwan 30013, R.O.C. (hereinafter referred to as “**NTHU**”) and **DATA STORAGE INSTITUTE (Co. Registration No. 199702111Z)**, having its principal office at 5, Engineering Drive 1 (off Kent Ridge Crescent, NUS), Singapore 117608 (hereinafter referred to as “**DSI**”).

NTHU and DSI (each referred to hereafter as a “Party” or, collectively, as the “Parties”, respectively).

RECITALS:

- A. DSI is a national research institute funded by and within the purview of A*STAR and are engaged in, *inter alia*, high technology research and development activities.
- B. From time to time NTHU and DSI may engage in collaborative research and development activities by undertaking Projects (as defined herein) for mutual benefit.
- C. DSI and NTHU wish to regulate the establishment and conduct of the Projects on the terms and conditions of this Master Agreement.

IT IS HEREBY AGREED as follows:-

1. **DEFINITIONS**

- 1.1 In this Master Agreement, unless the context otherwise requires, the following expressions shall have the following meanings: -

“Applications” means any patent application, division, continuations and all applications for registration of copyright, designs, semi-conductor layout designs and any other intellectual property rights registration relating to the Intellectual Property.

“A*STAR” means the Agency for Science Technology and Research, a body corporate established under the Agency for Science, Technology And Research Act (Cap. 5A).

“Background IP” means any Intellectual Property owned or Controlled by any Party and which was conceived or reduced to practice either (a) prior to the

Commencement Date as shown by written records; or (b) outside of the work performed pursuant to this Agreement and which is (i) introduced to or disclosed or otherwise supplied by that Party for the relevant Project; and (ii) specifically documented by written records as being "Background IP". Background IP owned or Controlled by each Party shall be identified and as set forth in an annex to each Project Agreement, which annex may be updated from time to time on account of additional Background IP that may be introduced during the course of the relevant Project.

"Background Know How" means any Know How owned or Controlled by any Party either (a) prior to the Commencement Date, as shown by written records; or (b) outside of the work performed pursuant to this Agreement and which is (i) introduced to or disclosed or otherwise supplied by that Party for the relevant Project and (ii) specifically documented by written records as being "Background Know-How". Background Know-How owned or Controlled by each Party shall be identified and as set forth in an annex to each Project Agreement, which annex may be updated from time to time on account of additional Background Know-how that may be introduced during the course of the relevant Project.

"Commencement Date" refers to effective date of a Project Agreement as agreed to by the Parties.

"Confidential Information" refers to information of any kind that is disclosed by a Party and that, by appropriate marking, is identified as confidential and/or proprietary at the time of disclosure including any copies or reproductions of such information in any form or medium and for any part(s) thereof. In the event that Confidential Information is provided visually or orally, obligations of confidence shall attach only to that information which is confirmed by the disclosing Party in writing within seven (7) working days as being confidential.

"Contributions" means any intellectual, inventive, cash or in-kind contributions such as manpower, equipment, facilities, resources, or information made or to be made by any Party at that Party's cost for a Project in accordance with the relevant Project Agreement.

"Control" means (as an adjective or as a verb including conjugations and variations such as "Controls" "Controlled" or "Controlling") (a) with respect to Intellectual Property and/or Know-How, the possession by a Party of the ability to grant a license or sublicense of such Intellectual Property and/or Know-How without violating the terms of any agreement or arrangement between such Party and any third party; and (b) with respect to proprietary materials, the possession by a Party of the ability to supply such proprietary materials to the other Party as provided herein without violating the terms of any agreement or arrangement between such Party and any third party.

"DSI FIP" means Foreground IP invented, developed, devised, discovered, authored, or created solely by DSI or its employees (including temporary staff), servants, students, or agents for or in the course of performing a Project.

"DSI Foreground Know How" means Know How invented, developed, devised, discovered, authored, or created solely by DSI or its employees (including

temporary staff), servants, students, or agents for or in the course of performing a Project.

“Effective Date” means 17th April 2012.

“Foreground IP” or “FIP” means Intellectual Property, research and deliverables developed in the course of or otherwise arising from a Project.

“Foreground Know How” means Know How developed in the course of or arising from a Project.

“Intellectual Property” means collectively all intellectual property rights (including without limitation rights in confidential information, patents, copyrights, designs, semiconductor layout designs and trade secrets) worldwide arising under statutory or common law, whether or not perfected, and any pending applications of the foregoing.

“Joint FIP” means all Foreground IP jointly invented, developed, devised, discovered, authored, or created by the Parties or their respective employees, servant, or agents for or in the course of performing a Project.

“Joint Know How” means all Know How jointly invented, developed, devised, discovered, authored, or created by the Parties or their respective employees, servant, or agents for or in the course of performing a Project.

“Know-how” means any non-patented proprietary method, technique, process, technology, recipe, and formula (i) specifically documented by written records as being “Know-How”; and (ii) is secret, and identified or identifiable in a tangible form.

“Party” means a party to this Agreement.

“Project” means any project undertaken jointly by DSI and NTHU pursuant to this Master Agreement.

“Project Agreement” means an agreement (substantially in the form set out in Schedule 1 hereto) to be signed between DSI and NTHU in relation to each specific Project pursuant to this Master Agreement.

“Third Party” means any person other than A*STAR, DSI and NTHU.

“NTHU FIP” means Foreground IP invented, developed, devised, discovered, authored, or created solely by NTHU or its employees, servants, or agents for or in the course of performing a Project.

“NTHU Foreground Know How” means Know How invented, developed, devised, discovered, authored, or created solely by NTHU or its employees, servants, or agents for or in the course of performing a Project.

1.2 Any reference in this Agreement to:

- (a) "writing" or any cognate expression includes a reference to any communication effected by mail, facsimile transmission or such other means of electronic communication.
 - (b) "person" includes any individual, corporation, company, corporate or incorporated body of persons, firms, business, institution, any State or agency thereof or other legal entity.
- 1.3 The clause headings are inserted for ease of reference and shall be ignored in the construction or interpretation of this Agreement.
- 1.4 Words incorporating the singular shall include the plural and vice versa.
- 1.5 References in this Agreement to clauses or sub-clauses shall be interpreted as references to clauses or sub-clauses of this Agreement unless the context requires otherwise.

2. PROJECT AGREEMENTS

- 2.1 DSI and NTHU may, from time to time, after the Effective Date identify particular areas of research of interest to them, which could form the subject matter of Projects.
- 2.2 In the event that NTHU and DSI wish to pursue a Project, they shall execute a Project Agreement. Each Project Agreement shall consist of such additional terms and conditions to be agreed including but not limited to terms relating to the scope of work, time-frames, Contributions by the respective Parties in terms of funding, manpower deployment, payment terms, access to facilities and laboratory use, materials, equipment, Intellectual Property and Know-How contributions.
- 2.3 The Parties agree that the terms and conditions of this Master Agreement shall govern and apply to all Project Agreements unless otherwise expressly stated in the relevant Project Agreement. In the event of any inconsistency or ambiguity between the terms of this Master Agreement and any relevant Project Agreement, the terms of the Master Agreement shall prevail.
- 2.4 In consideration of the mutual covenants and promises herein and in each individual Project Agreement, the Parties hereby agree to undertake each Project with due diligence and use all reasonable efforts to achieve the due completion of the Project.
- 2.5 Parties shall appoint a DSI Principal Investigator and NTHU Principal Investigator respectively to supervise the conduct of each Project. In the event that a Principal Investigator becomes unable or unwilling to continue the Project under a Project Agreement and a substitute is not available or DSI and NTHU are unable to agree upon any other option to allow the Project to proceed in its original or amended form, the DSI and/or NTHU shall have the option to

terminate that Project and the relevant Project Agreement with no further liability to the other, in respect of the further performance of that Project.

- 2.6 The Parties agree that they shall not commence work on any Project until and unless a formal Project Agreement, duly authorized by the respective management of NTHU and DSI (or any of them as the case may be), has been executed by the Parties thereto.
- 2.7 The Parties recognize that owing to the research nature of the work to be undertaken in respect of the Project completion within the period of performance, or within the limits of financial support allocated cannot be guaranteed. The Parties shall exercise reasonable efforts in the performance of each Project in accordance with the agreed scope of works.

3. **CONTRACT VALIDITY**

This Master Agreement shall become effective on the Effective Date and shall remain in force for a period of three (3) years unless sooner terminated in accordance with its terms. Thereafter, this Master Agreement may be extended on terms to be agreed in writing.

4. **COORDINATOR**

- 4.1 For the term of this Master Agreement, each Party will appoint one employee to act as its representative with respect to coordinating the identification and/or discussions of potential Projects under this Master Agreement (each such employee being a “coordinator”). The initial Coordinator for each Party is:

NTHU

Prof. Jen-Yuan (James) Chang
Department of Power Mechanical Engineering
College of Engineering
Email: jychang@pme.nthu.edu.tw

DSI

Ng Keng Boon, Industry Development Manager
Business Development Department
Email: NG_Keng_Boon@dsi.a-star.edu.sg

The Party appointing a coordinator shall have the right to change or otherwise replace its coordinator. Each Party shall notify the other Party of the identity of its new coordinator.

5. **PUBLICITY**

- 5.1 Save as expressly permitted herein, no Party shall use the name, logo or trademark of any other Party or its officers or employees in any press or news release without obtaining the prior written approval of that Party.
- 5.2 The Parties agree that they shall issue a joint press release to announce the execution of this Master Agreement and the collaborative venture contemplated herein as soon as practicably possible after the execution of this Master Agreement. The text of this initial press release shall be approved by both Parties.
- 5.3 Save as expressly provided in Clause 5.2, a Party (hereafter referred to as the "Issuing Party") shall only issue press releases related to the activities contemplated by this Master Agreement or any Project Agreement that have either (i) been approved by the other Party; or (ii) are required to be issued by the Issuing Party as a matter of law. In all circumstances, the Issuing Party shall provide the other Party with a draft press release at least two (2) weeks prior to its intended publication for such other Parties' review. During such period, the other Party shall (i) approve the draft press release and permit the Issuing Party to issue the press release, or (ii) contact the Issuing Party to discuss modification to the draft press release. If the other Party requests for modifications, then the Issuing Party shall either make such modification or work with the other Party to arrive at a press release that such other Parties approve.
- 5.4 Nothing in this Master Agreement shall preclude the Parties from disclosing the fact of this Master Agreement or any Project Agreement and to identify this Master Agreement and any Project Agreement and the identity of the Parties to the same.

6 INTELLECTUAL PROPERTY RIGHTS

- 6.1 All Background IP and Background Know How disclosed by one Party to the other in the course of any Project shall remain the property of the Party introducing and/or disclosing the same. Each Party hereby grants to the other, for the duration of the relevant Project only, a non-exclusive, royalty-free license to use that Party's Background IP and Background Know How disclosed for the purposes of the relevant Project. Each Party agrees that it will not use the other Party's Background IP for any purpose other than for the Project in respect of which it is disclosed. If NTHU requires to use DSI's Background IP and/or Know How for any purpose other than for the purpose of the Project, DSI may at its sole discretion permit its Background IP and/or Know How to be used for such other purpose, subject to terms and conditions imposed by DSI or Exploit Technologies Pte Ltd as the case may be.
- 6.2 At the start of each Project, and on an on-going basis thereafter, to the extent to which they are so aware each Party will promptly report to the other Party the dependence of the Project on, and availability of, any Intellectual Property not owned by the Parties. Each Party shall also report to the other if they become aware of any third party patent or patent application relevant to the exploitation of any Foreground IP if rights to exploit such Foreground IP are to be granted.

- 6.3 All rights, interests and title to Joint FIP and Joint Know-How (known collectively as Joint Project IP”) shall be governed by the following provisions:
- 6.3.1 The Parties shall jointly own the Joint Project IP as joint tenants. NTHU agrees and accepts that DSI may, at its absolute discretion, assign or otherwise transfer to A*STAR, its share of the legal and beneficial ownership in the Joint Project IP without any reference to NTHU or any obligation to obtain NTHU’s consent.
 - 6.3.2 The Parties shall appoint one of them as the lead party (hereinafter referred to as “IP Lead Party”) to undertake the filing, prosecution and maintenance of all applications for the registration of patents, trademarks, designs and copyrights (where applicable) for the protection of the Joint Project IP in the joint names of DSI and NTHU or their assignees. It is agreed that DSI through Exploit Technologies Pte Ltd (“Exploit Technologies”) still have the first option to be the Joint IP Lead Party.
 - 6.3.3 The Parties agree to give the IP Lead Party reasonable assistance in the filing, prosecution and maintenance of all applications for the registration of the Joint Project IP including without limitation patents, and will cause to be executed all assignments and other instruments and documents as may be necessary or appropriate.
 - 6.3.4 Both Parties shall bear all expenses incurred in the filing, prosecution and maintenance of all applications for the registration of the Joint Project IP in equal undivided shares, unless otherwise expressly agreed in writing. The IP Lead Party shall use reasonable efforts to keep the other party informed prior to the filing and maintenance of all such applications.
 - 6.3.5 The other Party shall reimburse the IP Lead Party for its equal share of the expenses incurred in the filing, prosecution of applications and maintenance of issued applications with respect to the Joint Project IP on a quarterly basis after receiving an invoice from the IP Lead Party for such expenses.
 - 6.3.6 Each Party may elect to discontinue its obligation to pay or reimburse expenses associated with any such applications relating to Joint Project IP within any particular country upon sixty (60) days written notice to the other Party, and the Party’s obligation to share in the said expenses shall cease immediately after the sixty (60) days’ written notice period. Where any Party elects not to seek or maintain any application relating to the registration of the Joint Project IP in any particular country or not to share in the expenses thereof in any country, the other Party shall have the right to seek or maintain such protection in such country in the joint names of both Parties at its expense and will have full control over the prosecution and maintenance thereof. In such event, the Party choosing not to seek or maintain any application relating to the registration of the Joint Project IP or bear its share of the expenses will not lose its title to such Joint Project IP but shall have no further right to commercialise, or license for use on a commercial basis or use patents in respect of the Joint Project IP

for commercial purposes or receive any proceeds from the commercial exploitation of the Joint Project IP.

- 6.3.7 Each Party shall have the free and unfettered right to use, commercialise and license to third parties the Joint Project IP for any purpose, including without limitation to research and development purposes by themselves or in collaboration projects with third parties, without seeking the consent of and accounting to the other Party. The aforesaid right to use the Joint Project IP shall extend to all research centres and institutes funded and managed by A*STAR.
- 6.4 NTHU FIP and NTHU Foreground Know How shall be solely owned by NTHU.
- 6.5 DSI FIP and DSI Foreground Know How shall be solely owned by DSI.
- 6.6 The Parties agree that each of them shall be so entitled to assign any of their rights in the Foreground IP and Foreground Know How to any nominee.
- 6.7 Notwithstanding anything to the contrary herein or in any Project Agreement, DSI shall have the right to use all Foreground IP and Foreground Know How for their research, development and academic purposes.
- 6.8 NTHU hereby grants to A*STAR, DSI and all research institutes and centres funded or managed by A*STAR a perpetual, non-exclusive, world-wide, royalty-free, irrevocable, fully paid-up right and license to use the NTHU FIP and NTHU Foreground Know How for their own, research, development and academic use.
- 6.9 DSI hereby grants to NTHU a non-exclusive, royalty-free, revocable with cause, fully paid-up right and license to use the DSI FIP and DSI Foreground Know How for their own internal and non-commercial academic as well as research and development use.
- 6.10 If any Party wishes to use the other Party's solely owned FIP and/or Foreground Know How for any purpose other than the permitted purposes as set out in Clause 6 hereof, the Parties may negotiate in good faith on the terms and conditions to be imposed in relation to the use of such FIP and/or Foreground Know How for such purpose other than the permitted purposes as set out in Clause 6 hereof.
- 6.11 DSI shall be entitled to exercise their rights as owner of the Joint FIP, Joint Know How, DSI Foreground Know How and DSI FIP in particular to freely use, license and/ or otherwise commercialize, the Joint Know How, DSI Foreground Know How, Joint FIP and DSI FIP, including use of the Joint FIP, Joint Know How, DSI Foreground Know How and DSI FIP in collaborative research and development purposes with third parties, without any obligation to obtain the other Party's prior consent or need to account to the other Party therefore.
- 6.12 It is agreed that any new Intellectual Property conceived or reduced to practice by either party using the other party's FIP or Foreground Know How shall be the property of the Party developing or inventing the same.

7. **PUBLICATION**

- 7.1 Either Party may publish and otherwise publicly disclose information it has gained in the course of the Projects (“the Publishing Party”), subject to the following procedure stipulated in this clause 7. The Publishing Party will provide the other Party with a copy of each proposed publication or presentation in advance of publication or presentation (collectively referred to as “Publication”) and the other Party shall have thirty (30) days to review each Publication to identify and notify the Publishing Party in writing of any subject matter that is confidential information of or proprietary to the other Party or which constitutes patentable subject matter; failing which the other Party shall be deemed to have approved the Publication.
- 7.2 Confidential Information identified by the other Party, which is governed by Clause 9, shall be deleted from the proposed publication or presentation unless the other Party considers the Confidential Information to be patentable information, in which case it will be treated as set forth in Clause 7.3 hereof.
- 7.3 If the proposed publication or presentation involves patentable subject matter, the publication or presentation shall be delayed for a further period of ninety (90) days to allow for a patent to be filed.
- 7.4 If no decision is made within the thirty (30) day period as set out in Clause 7.1, the Publishing Party may proceed with the Publication with the necessary deletions of the portions objected to by the other Party.

8 **INFRINGEMENT**

- 8.1 Each Party to a Project Agreement shall promptly inform the other of any infringement of the Foreground IP or any part thereof.
- 8.2 All other terms and conditions with regards to infringement actions relating to the Foreground IP shall be separately negotiated and specified in the Project Agreements.

9 **CARE AND USE OF CONFIDENTIAL INFORMATION**

- 9.1 Each Party agrees to use the Confidential Information of the other Party solely for the purposes of this Master Agreement and/or the relevant Project Agreement as the case may be. It is agreed that the transfer of Confidential Information shall not be construed as a grant of any right or license with respect to the information delivered except as set forth herein or in a duly executed license agreement.
- 9.2 Each Party agrees that all Confidential Information communicated in connection with this Master Agreement shall be kept confidential by the Parties unless a specific written release is obtained from the Disclosing Party. Each Party agrees to make Confidential Information available only to those employees and students who require access to it in the performance of this Master Agreement and/or any

Project Agreement and to inform them of the confidential nature of such information and their obligation to protect such confidentiality. Each Party shall exert reasonable efforts, no less than the protection given to its own confidential information, to maintain such information in confidence. This obligation of confidentiality shall continue to survive for a period three (3) years from the date of disclosure of that Confidential Information.

- 9.3 Each Party agrees that the obligations of confidentiality contained herein shall not attach to information that: -
- (a) is publicly available prior to the date of this Master Agreement or the relevant Project Agreement or becomes publicly available thereafter through no wrongful act of the Receiving Party;
 - (b) was known to the Receiving Party prior to the date of the disclosure or becomes known to the non-disclosing Party thereafter from a third party having an apparent bona fide right to disclose the information;
 - (c) is disclosed by the Receiving Party with prior written approval of the disclosing Party;
 - (d) is independently developed by the Receiving Party;
 - (e) the Receiving Party is obligated to produce pursuant to an order of a court of competent jurisdiction, provided that the Receiving Party promptly notifies the disclosing Party and cooperates reasonably with efforts to contest or limit the scope of such order.

It is agreed that where DSI is the Receiving Party in respect of NTHU Confidential Information, DSI may disclose such aspects of NTHU's Confidential Information on a need to know basis to A*STAR, Exploit Technologies Pte Ltd and all research institutes managed or funded by A*STAR, and its management, professional and legal advisors.

- 9.4 Subject to Clause 5, neither Party shall disclose the specific terms and conditions of this Agreement without the express permission of the other Party.

10 **INDEPENDENT CONTRACTOR**

- 10.1 Neither this Master Agreement nor any Project Agreement is intended to create, nor shall it be construed as creating, any association, employment, partnership or trust.
- 10.2 Unless specified herein, neither Party is authorized or empowered to act as agent for the other for any purpose and shall not on behalf of the other enter into any contract, warranty or, representation as to any matter.

11 **LIABILITY FOR STAFF**

Each Party agrees that while its representatives are on the other Party's site, its representatives shall adhere, at all times, to all applicable rules, regulations, policies and procedures of the other Party. Each Party hereby confirms that to the best of its information and belief all its representatives who are engaged in the Projects have the necessary skills, expertise and training, including laboratory safety procedures, to perform their obligations under this Agreement.

12 **DISCLAIMER OF WARRANTY**

12.1 Each Party makes no representations, conditions or warranties, either express or implied with respect to any of the Confidential Information, Know-how and Background IP disclosed to each other or with respect to the work performed by it pursuant to the terms of this Master Agreement, any Project Agreement or the Foreground IP. Without limiting the generality of the foregoing, Each Party expressly disclaims any implied warranty, condition or representation that its Know-how, Confidential Information, Background IP or the Foreground IP: -

- (a) shall correspond with a particular description;
- (b) is of a merchantable or satisfactory quality;
- (c) is fit for a particular purpose; or
- (d) is durable for a reasonable period of time.

12.2 Nothing in this Master Agreement or any Project Agreement shall be construed as a warranty or representation by each Party as to the title of any of the Know-how, Background IP disclosed hereunder, the Foreground IP or any Confidential Information or that anything made, used, sold or otherwise disposed of in connection with the same are or will be free from infringement of patents, copyrights, trademarks, industrial designs or other intellectual property rights of any third Party.

12.3 Nothing shall impose an obligation on DSI to bring or prosecute or defend actions or suits against or by third parties for infringement of patents, copyrights, trademarks, industrial designs or other intellectual property or contractual rights, whether in connection with its Background IP, DSI FIP, DSI Foreground Know How, Joint Know How or the Joint FIP developed under this Agreement or otherwise.

13 **LIMITATION OF LIABILITY**

13.1 In no event shall any Party be liable for consequential, indirect, special or incidental damages or loss of profits arising from any breach of this Master Agreement or any Project Agreement.

13.2 No action, whether in contract or tort (including negligence) or otherwise arising out of or in connection with this Master Agreement or any Project Agreement

may be brought by the Parties against each other more than three (3) years after the cause of action has occurred.

- 13.3 A Party's total aggregate liability due to any and all events arising out of or in connection with this Master Agreement whether in tort (including negligence), breach of contract or otherwise shall be limited to the total financial Contributions payable in relation to the Project Agreement giving rise to any such loss or damage.

14 **NOTICES**

- 14.1 Any notice to be given by any Party to this Agreement shall be in writing and shall be deemed duly served if delivered personally or sent by facsimile transmission or by prepaid registered post to the addressee at the address as stated above or (as the case may be) the facsimile number of that Party or at such other address (or facsimile number) as the Party to be served may have notified the other Party for the purposes of this Agreement.

- 14.2 Any notice sent by facsimile shall be deemed served when despatched and any notice served by prepaid registered post shall be deemed served forty-eight (48) hours after despatch thereof. In proving the service of any notice it will be sufficient to prove in the case of a letter that such letter was properly stamped addressed and placed in the post or delivered or left at the current address if delivered personally and in the case of a facsimile transmission was duly despatched to the facsimile number of the addressee given above or subsequently notified for the purposes of this Agreement.

15 **TERMINATION**

- 15.1 Any Party (hereafter the "Terminating Party") may terminate this Master Agreement: -

(a) in the event of the other Party (hereafter the "Other Party") being in breach of any material term of this Master Agreement which is either incapable of rectification or which is not rectified within thirty (30) days of notice; or

(b) in the event the Other Party: -

(i) has a receiver appointed to any of its assets; or

(ii) compounds with its creditors; or

(ii) enters into liquidation other than for the purposes of amalgamation or reconstruction.

- 15.2 The termination of this Master Agreement shall not affect any on-going Project Agreement established under it prior to such termination and which has not been terminated in accordance with the terms of this Master Agreement or that Project

Agreement. Notwithstanding the termination of the Master Agreement, the terms and conditions of the Master Agreement shall continue to apply to Project Agreements still in existence as at the date of termination as if the Master Agreement had not been terminated.

- 15.3 Termination of this Master Agreement by either Party for any reasons shall not affect the rights and obligations of the Parties accrued prior to the effective date of termination of this Master Agreement. Termination of this Master Agreement, however affected, shall not release the Parties from their rights and obligations under clauses 5, 6, 7, 9, 11, 12, 13 and 16 of this Master Agreement.

16 **DISPUTE RESOLUTION AND LAW**

- 16.1 Any dispute or disagreement arising between NTHU and DSI in relation to this Master Agreement or any Project Agreement or the rights and obligations of the Parties hereunder ("Dispute") shall be amicably resolved by the Parties, failing which the Dispute shall in the first instance be referred to the Chief Executive Officer of NTHU and the Executive Director(s) of DSI for resolution (known collectively as the "Executives"). Any agreed decisions of the Executives pursuant to Clause 16.1 will be final and binding on the Parties. In the event the Executives are unable to resolve any dispute within thirty (30) days after submission to them, either Party may then refer such dispute to arbitration in accordance with Clause 16.2.

- 16.2 Any dispute which cannot be resolved by amicable settlement by the process described in Clause 16.1 above shall be referred to and finally resolved by arbitration in Singapore in accordance with the Arbitration Rules of Singapore International Arbitration Centre for the time being in force which rules are deemed to be incorporated by reference to this clause. The tribunal shall consist of a single arbitrator. The language of the arbitration shall be in English. Any award made hereunder shall be final and binding upon the Parties and judgment on such award may be entered into any court of tribunal having jurisdiction hereof.

- 16.3 This Master Agreement (including the Project Agreements) and its subsequent variations shall be deemed to be made in Singapore and shall be subject to, governed by and interpreted in accordance with the laws of the Republic of Singapore for every purpose.

17 **ASSIGNABILITY**

No Party may assign this Master Agreement or any Project Agreement without the written permission of the other Parties. Notwithstanding any provision to the contrary, if at any time after the date of this Agreement the functions and operations of DSI are assigned, merged, transferred into or otherwise forms part of another organization of A*STAR ("the New Entity"), such that the New Entity takes over the whole or substantially the whole of DSI's operations, then it is agreed that DSI may:

(a) at its option, assign or novate this Agreement in its entirety to the New Entity which will then assume all of DSI's rights and obligations hereunder; or

(b) assign all or any part of its rights hereunder to the New Entity.

18 **WAIVER**

No waiver by any Party hereto of any breach or default of any the covenants of this Master Agreements herein set forth shall, be deemed a waiver as to any subsequent or similar breach or default.

19 **SEVERABILITY**

If any provision of this Master Agreement shall be held to be invalid, illegal, or unenforceable in any respect, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby, provided that the intent of the Parties in entering into the Master Agreement is not materially affected thereby.

20 **ENTIRE AGREEMENT**

This Master Agreement including the Project Agreement and the various Schedules referred to therein (all of which shall be deemed to form part of this Master Agreement) constitutes the entire agreement between the Parties concerning the subject matter hereof. All prior written agreements respecting the subject matter hereof are void. No amendment to this Master Agreement or the Project Agreement shall be binding on the Parties unless mutually agreed to and executed in writing by each of the Parties thereto.

21 **CONTRACTS (RIGHTS OF THIRD PARTIES) ACT (CAP. 53B)**

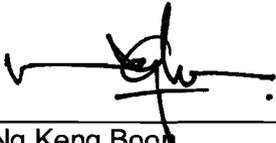
Save to give effect to the rights accruing to A*STAR, the Parties do not intend that any term of this Agreement should be enforceable by virtue of the Contracts (Rights of Third Parties) Act (Cap. 53B) or otherwise, by any person who is not a Party to this Agreement.

AS WITNESS the hands of the Parties hereto the day and year first above written.

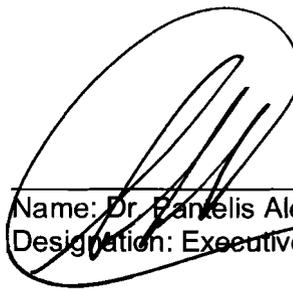
Signed by
for and on behalf of

DATA STORAGE INSTITUTE

in the presence of:



Name: Ng Keng Boon
Designation: Industry Development Manager

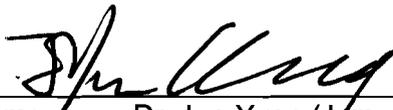


Name: Dr. Panelis Alexopoulos
Designation: Executive Director

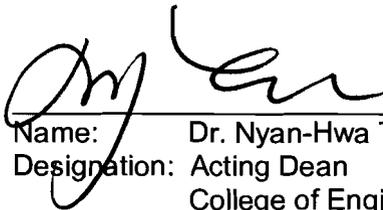
Signed by
for and on behalf of

**COLLEGE OF ENGINEERING of
NATIONAL TSINGHUA UNIVERSITY**

in the presence of:



Name: Dr. Jen-Yuan (James) Chang
Designation: Associate Professor
Department of Power Mechanical Engineering



Name: Dr. Nyan-Hwa Tai
Designation: Acting Dean
College of Engineering

SCHEDULE 1

PROJECT AGREEMENT ON _____

This Project Agreement on _____ (hereinafter referred to as "Project Agreement") is made on the ____ day of _____ 20__

Between

- (1) **DATA STORAGE INSTITUTE** of 5 Engineering Drive (off Kent Ridge Crescent, NUS), Singapore 117608 (hereinafter referred to as "**DSI**");

And

- (2) **COLLEGE OF ENGINEERING of NATIONAL TSING HUA UNIVERSITY, TAIWAN** of 101, Section 2, Kuang-Fu Road, Hsinchu, Taiwan 30013, R.O.C (hereinafter referred to as "**NTHU**").

DSI and NTHU shall be collectively referred to as the "Project Parties" and individually referred to as a "Project Party".

RECITALS

- (A) DSI and NTHU entered into a Master Research Collaboration Agreement dated 17th April 2012 (hereinafter referred to as "the Master Agreement") which provides for the general terms and conditions governing all projects undertaken jointly by DSI and NTHU.
- (B) The Project Parties have identified _____ as the area of research and subject matter of a project entitled "_____" (hereinafter referred to as "Project").
- (C) Pursuant to the Master Agreement, the Project Parties hereto agree to enter into this Project Agreement to set out additional terms and conditions for the Project.

NOW IT IS HEREBY AGREED as follows:

1. SCOPE

- 1.1 Except as otherwise provided in this Project Agreement, the terms and conditions of the Master Agreement shall form part of the terms and conditions of this Project Agreement and shall govern and apply to the Project. In the event of any inconsistency or ambiguity between the terms of the Master Agreement and this Project Agreement, the terms of the Master Agreement shall prevail.
- 1.2 In consideration of the mutual covenants and provisos herein, each of the Project Parties agrees to undertake to perform the Project in accordance with the work plan specified in Schedule 1 to this Project Agreement (hereinafter referred to as

“Work Plan”) in accordance with the terms of the Master Agreement and this Project Agreement.

- 1.3 All terms and references used in the Master Agreement and which are defined in the Master Agreement but are not defined in this Project Agreement shall, unless the context otherwise requires, have the same meaning and construction when used in this Project Agreement.

2. PRINCIPAL INVESTIGATORS

The Project will be supervised and co-ordinated by _____ on behalf of DSI (hereinafter referred to as “the DSI PI”) and _____ on behalf of NTHU hereinafter referred to as “the NTHU”).

3. CONDITIONS

- 3.1 The Project Parties shall make the manpower, payment , equipment, funding and other contributions as specified in the Work Plan.
- 3.2 Each Project Party shall be responsible for its own taxes payable under this Project Agreement save that all payments to be made by either Party under this Project Agreement shall be exclusive of Goods and Services Tax
- 3.3 This Project Agreement shall come in force on the Effective Date stated in Clause 7 hereof and shall continue for a period of [_____] unless earlier terminated in accordance with the terms of this Project Agreement or extended by the mutual agreement of the Project Parties in writing. Notwithstanding the foregoing, the Project Parties agree and declare that the obligations of DSI shall cease (except as otherwise set forth in clauses 8.3 and 8.4) upon DSI's completion of its deliverables and/or milestones set out in the Work Plan.
- 3.4 All payment of monies will be made by electronic fund transfer or direct debits to the relevant Project Party's bank account as notified by such Project Party to the Project Party who is required to effect payment .
- 3.5 Any payment made pursuant to any Project shall be without prejudice to the rights or claims a Project Party may have against another Project Party and shall not constitute any admission or acceptance by the Project Party effecting payment in relation to the performance by the other Project Party of any of its obligations under the Project Agreement.
- 3.6 Any Project Party may at any time with notice to the other withhold payment of any disputed amounts to the other (but will continue to be obliged to pay undisputed amounts) and a Project Party's rights under this clause 3.4 will be without prejudice to the other Project Party's obligation to continue to perform its obligations under the Project notwithstanding that payment (or part thereof) under the Project Agreement may be in dispute.

- 3.7 Save as expressly provided otherwise , each Project Party will each bear sole responsibility for all taxes, assessments and other similar payments or levies that may be payable in respect of any monies received or to be received from the other Project Party.
- 3.8 If any deduction or withholding in respect of tax or otherwise is required by law to be made from any of the sums payable pursuant to any Project Agreement, the payer shall be obliged to pay the payee such greater sum as will, after such deduction or withholding as it was required to be made or has been made, to leave the payee with the same amount as it would have been entitled to receive.

4. REVIEW MEETINGS

- 4.1 Each Project Party shall prepare a written technical report on the progress of the Project and submit the report to the PI of the other Project Party by email once every three (3) months. The report shall include details of results achieved, activities accomplished and problems encountered. The first report shall be due in _____.
- 4.2 The Project Parties agree to hold a project review meeting once every three (3) months to review the implementation of the Project (hereinafter referred to “Project Review Meetings”).
- 4.3 Each Project Party shall be responsible for its own costs and expenses incurred in preparing and submitting reports and attending Project Review Meetings.
- 4.4 Each Project Party shall notify the other of any expected delay in the performance of the Project or any matter likely to impede the performance of the Project to the best of each Project Party’s knowledge.

5. IMPLEMENTATION TIME SCHEDULE

The Project Parties shall perform the Project in accordance with the implementation time schedule as set out in the Work Plan. In the event a Project Party provides a notification to the other Project Party of any of the matters stated in Clause 4.4 hereof, the Project Parties shall mutually agree on a revised implementation time schedule, if necessary.

6. DELIVERABLES

- 6.1 The Project Parties shall upon completion of the Project provide the deliverables required of each of them as specified in the Work Plan.

7. EFFECTIVE DATE

This Project Agreement shall take effect on the date first above written (hereinafter referred to as “Effective Date”).

8. TERMINATION

- 8.1 This Project Agreement may be terminated by any of the Project Parties without assigning any reason therefor on sixty (60) days written notice to the other Project Party, or by mutual written agreement of the Project Parties.
- 8.2 Any Project Party (hereinafter referred to as the “Terminating Party”) may terminate this Project Agreement: -
- (a) in the event of the other Project Party (hereinafter referred to as “the Other Project Party”) being in breach of any material term of the Master Agreement or this Project Agreement, such breach being either incapable of rectification or where capable of being rectified, is not so rectified within (30) days of notice by the Terminating Party; or
 - (b) in the event the Other Project Party: -
 - (i) has a receiver appointed to any of its assets; or
 - (ii) compounds with his creditors; or
 - (iii) enters into liquidation other than for the purposes of amalgamation or reconstruction.
- 8.3 Where this Project Agreement is terminated in accordance with the provisions of clause 8.1 or clause 8.2 hereof, the Project Parties shall use reasonable efforts to wind up the work carried out in accordance to the details described in the Work Plan in an orderly fashion and where applicable to complete such outstanding work during the relevant action periods. Further, the Project Parties shall settle any issue pertaining to monetary contributions in accordance with the provisions of Clause 16 of the Master Agreement.
- 8.4 Any termination of this Project Agreement will not affect the accrued rights of the Project Parties before the termination date.

9. NOTICES

All notices for this Project Agreement shall be sent in accordance with the Master Agreement to the following addresses or such other address as a Project Party may notify the other Project Party for the purpose of this Project Agreement:

DSI

Contact :
Address :
Fax :

NTHU

Contact :
Address :
Fax :

Signed by)
for and on behalf of)
COLLEGE OF ENGINEERING of)
NATIONAL TSINGHUA UNIVERSITY)

in the presence of:)
)
)
)
)
)

Name: Dr. Nyan-Hwa Tai
Designation: Acting Dean
College of Engineering

Name: Dr. Jen-Yuan (James) Chang
Designation: Associate Professor
Department of Power Mechanical Engineering

Schedule 1

WORK PLAN

[PROJECT TITLE]

- 1. INTRODUCTION**
- 2. OBJECTIVES OF THE RESEARCH**
- 3. SCOPE OF WORK**
- 4. DELIVERABLES**

The deliverables from NTHU and DSI are:

5. INPUTS TO THE PROJECT

DSI:

Infrastructure & Expertise

DSI has designed and set up a powerful test platform for xxxxxx

DSI has a team working on xxxx

DSI also has the necessary measurement and characterization equipment, including xxxxx

Manpower

1 Research Scientist (RS) at 25%

1 Senior Research Fellow (SRF) at 25%

1 Research Fellow (RF) at 15%

1 Senior Research Engineer (SRE) at 15%

1 Research Engineer (RE) at 15%

Consumables

NTHU:

Infrastructure & Expertise

NTHU has designed and set up a powerful test platform for xxxxxx

NTHU has a team working on xxxx

NTHU also has the necessary measurement and characterization equipment, including xxxxx

Manpower

- 1 Research Scientist (RS) at 25%
- 1 Senior Research Fellow (SRF) at 25%
- 1 Research Fellow (RF) at 15%
- 1 Senior Research Engineer (SRE) at 15%
- 1 Research Engineer (RE) at 15%

Consumables

6. PROJECT WORK SCHEDULE

| Research Milestones | | Months | | | | | | | | | | | |
|---------------------------------------|-----------------------|--------|---|---|---|---|---|---|---|---|----|----|----|
| Tasks/ Subtasks | Researchers in charge | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| A | Xxx, yyy | | | | | | | | | | | | |
| B | | | | | | | | | | | | | |
| C | | | | | | | | | | | | | |
| D | | | | | | | | | | | | | |
| E | | | | | | | | | | | | | |
| Final report and final review meeting | | | | | | | | | | | | | |

7. BUDGET

[Some sections may not be applicable. Please indicate "NA" where necessary]

In-kind Contribution by DSI (eg. Existing equipment being used, staff estimated time to be spent on project etc)

S\$
Please assign estimated monetary values

| | |
|--|-------------|
| <u>Equipment</u> | |
| Equipment 1 | xxx |
| Equipment 2 | xxx |
| <u>Manpower</u> | |
| Postdoctoral Fellow | xxx |
| Research Assistant/ Fellow/ Engineer/ etc. | xxx |
| <u>Consumables</u> | |
| chemicals, etc., etc. | xxx |
| <u>Others</u> | |
| Others 1 | xxx |
| Others 2 | xxx |
| Sub-Total | <hr/> <hr/> |

In-kind Contribution by NTHU (eg. existing equipment being used, PI's and staff estimated time to be spent on project etc) S\$
Please assign estimated monetary values

| | |
|--|-------------|
| <u>Equipment</u> | |
| Equipment 1 | xxx |
| Equipment 2 | xxx |
| <u>Manpower</u> | |
| Postdoctoral Fellow | xxx |
| Research Assistant/ Fellow/ Engineer/ etc. | xxx |
| <u>Consumables</u> | |
| chemicals, etc., etc. | xxx |
| <u>Others</u> | |
| Others 1 | xxx |
| Others 2 | xxx |
| Sub-Total | <hr/> <hr/> |

| | |
|---|-------------|
| <u>Contribution from Other Sources</u> | S\$ |
| <u>Equipment</u> | |
| Equipment 1 | xxx |
| Equipment 2 | xxx |
| <u>Manpower</u> | |
| Postdoctoral Fellow | xxx |
| Research Assistant/ Fellow/ Engineer/ etc. | xxx |
| <u>Consumables</u> | |
| chemicals, etc., etc. | xxx |
| <u>Others</u> | |
| Others 1 | xxx |
| Others 2 | xxx |
| Sub-Total | <hr/> <hr/> |

8. PATENTS

Likelihood of Patentable discovery/invention from this Project? Yes/No

Likelihood of commercialising/licensing the discovery/invention from this Project? Yes/No

9. BACKGROUND INTELLECTUAL PROPERTY

DSI Background IP

| S/No. | Background IP Title | Type of IP | Date of filing |
|--------------|----------------------------|---|---------------------------|
| 1. | | <i>[Patent, trade secret, software, equipment, paper/publication, etc.]</i> | <i>[For patents only]</i> |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |

NTHU Background IP

| S/No. | Background IP Title | Type of IP | Date of filing |
|--------------|----------------------------|---|---------------------------|
| 1. | | <i>[Patent, trade secret, software, equipment, paper/publication, etc.]</i> | <i>[For patents only]</i> |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |