ASX RELEASE

22 January 2019

ISSUE OF OPTIONS TO BOARD and US BASED EMPLOYEES & CONSULTANTS

4DS Memory Limited (ASX: 4DS) (**4DS**) (the **Company**) advises that it has issued 8,900,000 incentive options to its US based employees and consultants (**Employee Options**).

The options are exercisable at $0.052 each, and vest quarterly over ten quarters or two and a half years. The options expire on 22 January 2024. Please refer to the attached Appendix 3B for the details.

The Company also advises that is has agreed, subject to shareholder approval, to issue 16,880,000 incentive options as detailed below;

- Managing Director, Dr Guido Arnout – 7,380,000
- Executive Director, Mr David McAuliffe – 7,000,000
- Non-Executive Chairman, Jim Dorrian – 1,250,000
- Non-Executive Director, Howard Digby – 1,250,000

These options will be issued on the same terms and conditions as the Employee Options except for the vesting conditions of the options that are to be issued to Mr McAuliffe, described below.

The Company refers to its ASX announcement dated 11 November 2016 advising that Mr McAuliffe had moved from being a Non-Executive Director to an Executive Director, and that he was to receive "*an equity package to be determined by the Board, and which will be subject to shareholder approval*". The proposed grant of 7,000,000 options represents the equity package referred to in this ASX announcement. Of the 7,000,000 options to be issued to Mr McAuliffe 5,750,000 million will vest immediately upon grant and the balance of 1,250,000 million will vest quarterly over ten quarters. This vesting profile recognises the fact that Mr McAuliffe has now been in the Executive role for almost ten quarters.

In addition, the salary for Mr McAuliffe has been adjusted to more accurately reflect the role he is performing relative to initial expectations. His annual salary will be set at AU$200,000, effective from 1 January 2019 and he will also be paid a bonus of $50,000 for completing the successful capital raisings by the Company in 2017 and 2018.

The Company will look to call a meeting of shareholders to approve the option issue to members of the Board in due course.

ENDS

Contact information

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About 4DS

4DS Memory Limited (ASX: 4DS), with facilities located in Silicon Valley, is a semiconductor development company of non-volatile memory technology, pioneering Interface Switching ReRAM for next generation gigabyte storage in mobile and cloud. Established in 2007, 4DS owns a patented IP portfolio, comprising 20 US patents granted and 3 patents pending, which has been developed in-house to create high-density Storage Class Memory. 4DS has a joint development agreement with Western Digital subsidiary HGST, a global storage leader, which accelerates the evolution of 4DS' technology. 4DS also collaborates with imec, a world-leading research and innovation hub in nanoelectronics and digital technologies. The combination of imec's widely acclaimed leadership in microchip technology and profound software and information and communication technology expertise makes them unique.

For more information, please visit www.4dsmemory.com.

Appendix 3B

New issue announcement,
application for quotation of additional securities
and agreement

Information or documents not available now must be given to ASX as soon as available. Information and documents given to ASX become ASX's property and may be made public.

Introduced 01/07/96 Origin: Appendix 5 Amended 01/07/98, 01/09/99, 01/07/00, 30/09/01, 11/03/02, 01/01/03, 24/10/05, 01/08/12, 04/03/13

Name of entity

4DS MEMORY LIMITED

ABN

43 145 590 110

We (the entity) give ASX the following information.

Part 1 - All issues

You must complete the relevant sections (attach sheets if there is not enough space).

1	+Class of +securities issued or to be issued	Unlisted options
2	Number of +securities issued or to be issued (if known) or maximum number which may be issued	8,900,000
3	Principal terms of the +securities (e.g. if options, exercise price and expiry date; if partly paid +securities, the amount outstanding and due dates for payment; if +convertible securities, the conversion price and dates for conversion)	Unlisted employee/consultant options exercisable at $0.052 on or before 22 January 2024 subject to the following vesting conditions: 890,000 on 22 April 2019; 890,000 on 22 July 2019; 890,000 on 22 October 2019; 890,000 on 22 January 2020; 890,000 on 22 April 2020; 890,000 on 22 July 2020; 890,000 on 22 October 2020; 890,000 on 22 January 2021 890,000 on 22 April 2021; and 890,000 on 22 July 2021.

+ See chapter 19 for defined terms.

4	Do the +securities rank equally in all respects from the +issue date with an existing +class of quoted +securities? If the additional +securities do not rank equally, please state: • the date from which they do • the extent to which they participate for the next dividend, (in the case of a trust, distribution) or interest payment • the extent to which they do not rank equally, other than in relation to the next dividend, distribution or interest payment	Shares issued upon exercise of the unlisted options will rank equally in all respects from the date of issue with existing fully paid ordinary share of the Company.
5	Issue price or consideration	Nil
6	Purpose of the issue (If issued as consideration for the acquisition of assets, clearly identify those assets)	Issued to employees/consultants of the Company.
6a	Is the entity an +eligible entity that has obtained security holder approval under rule 7.1A? If Yes, complete sections 6b – 6h *in relation to the +securities the subject of this Appendix 3B*, and comply with section 6i	Yes
6b	The date the security holder resolution under rule 7.1A was passed	29 November 2018
6c	Number of +securities issued without security holder approval under rule 7.1	8,900,000
6d	Number of +securities issued with security holder approval under rule 7.1A	Nil
6e	Number of +securities issued with security holder approval under rule 7.3, or another specific security holder approval (specify date of meeting)	Nil
6f	Number of +securities issued under an exception in rule 7.2	Nil

6g	If +securities issued under rule 7.1A, was issue price at least 75% of 15 day VWAP as calculated under rule 7.1A.3? Include the +issue date and both values. Include the source of the VWAP calculation.	N/A

6h	If +securities were issued under rule 7.1A for non-cash consideration, state date on which valuation of consideration was released to ASX Market Announcements	N/A

6i	Calculate the entity's remaining issue capacity under rule 7.1 and rule 7.1A – complete Annexure 1 and release to ASX Market Announcements	7.1 147,910,187 7.1A 105,126,791

7	+Issue dates Note: The issue date may be prescribed by ASX (refer to the definition of issue date in rule 19.12). For example, the issue date for a pro rata entitlement issue must comply with the applicable timetable in Appendix 7A. Cross reference: item 33 of Appendix 3B.	22 January 2019

			Number	+Class
8	Number and +class of all +securities quoted on ASX (*including* the +securities in section 2 if applicable)		1,051,267,917	Fully paid ordinary shares

			Number	+Class
9	Number and +class of all +securities not quoted on ASX (*including* the +securities in section 2 if applicable)		36,458,333	Options @ $0.02 expiring on 30/6/2020.
			21,250,000	Options @ $0.05 expiring on 30/6/2020.
			5,000,000	Options @ $0.05 expiring on 31/12/2019.
			42,275,000	Options @ $0.042 expiring on 27/10/2022.
			5,000,000	Options at $0.07 expiring on 30/6/2020.
			880,000	Options at $0.045 expiring on 23/7/2020
			8,900,000	Options at $0.052 expiring on 22/1/2024, subject to vesting conditions

+ See chapter 19 for defined terms.

| 10 | Dividend policy (in the case of a trust, distribution policy) on the increased capital (interests) | N/A |

Part 2 - Pro rata issue

11	Is security holder approval required?	
12	Is the issue renounceable or non-renounceable?	
13	Ratio in which the +securities will be offered	
14	+Class of +securities to which the offer relates	
15	+Record date to determine entitlements	
16	Will holdings on different registers (or subregisters) be aggregated for calculating entitlements?	
17	Policy for deciding entitlements in relation to fractions	
18	Names of countries in which the entity has security holders who will not be sent new offer documents Note: Security holders must be told how their entitlements are to be dealt with. Cross reference: rule 7.7.	
19	Closing date for receipt of acceptances or renunciations	
20	Names of any underwriters	
21	Amount of any underwriting fee or commission	
22	Names of any brokers to the issue	
23	Fee or commission payable to the broker to the issue	

24	Amount of any handling fee payable to brokers who lodge acceptances or renunciations on behalf of security holders	

25	If the issue is contingent on security holders' approval, the date of the meeting	

26	Date entitlement and acceptance form and offer documents will be sent to persons entitled	

27	If the entity has issued options, and the terms entitle option holders to participate on exercise, the date on which notices will be sent to option holders	

28	Date rights trading will begin (if applicable)	

29	Date rights trading will end (if applicable)	

30	How do security holders sell their entitlements *in full* through a broker?	

31	How do security holders sell *part* of their entitlements through a broker and accept for the balance?	

32	How do security holders dispose of their entitlements (except by sale through a broker)?	

33	⁺Issue date	

Part 3 - Quotation of securities

You need only complete this section if you are applying for quotation of securities

34   Type of ⁺securities
        (*tick one*)

(a)   ☐   ⁺Securities described in Part 1

(b)   ☐   All other ⁺securities
               Example: restricted securities at the end of the escrowed period, partly paid securities that become fully paid, employee incentive share securities when restriction ends, securities issued on expiry or conversion of convertible securities

+ See chapter 19 for defined terms.

Entities that have ticked box 34(a)

Additional securities forming a new class of securities

Tick to indicate you are providing the information or documents

35 ☐ If the +securities are +equity securities, the names of the 20 largest holders of the additional +securities, and the number and percentage of additional +securities held by those holders

36 ☐ If the +securities are +equity securities, a distribution schedule of the additional +securities setting out the number of holders in the categories
1 - 1,000
1,001 - 5,000
5,001 - 10,000
10,001 - 100,000
100,001 and over

37 ☐ A copy of any trust deed for the additional +securities

Entities that have ticked box 34(b)

38 Number of +securities for which +quotation is sought

39 +Class of +securities for which quotation is sought

40 Do the +securities rank equally in all respects from the +issue date with an existing +class of quoted +securities?

If the additional +securities do not rank equally, please state:
• the date from which they do
• the extent to which they participate for the next dividend, (in the case of a trust, distribution) or interest payment
• the extent to which they do not rank equally, other than in relation to the next dividend, distribution or interest payment

41 Reason for request for quotation now

Example: In the case of restricted securities, end of restriction period

(if issued upon conversion of another +security, clearly identify that other +security)

Number	+Class

42	Number and ⁺class of all ⁺securities quoted on ASX (*including* the ⁺securities in clause 38)		

Quotation agreement

1 ⁺Quotation of our additional ⁺securities is in ASX's absolute discretion. ASX may quote the ⁺securities on any conditions it decides.

2 We warrant the following to ASX.

- The issue of the ⁺securities to be quoted complies with the law and is not for an illegal purpose.

- There is no reason why those ⁺securities should not be granted ⁺quotation.

- An offer of the ⁺securities for sale within 12 months after their issue will not require disclosure under section 707(3) or section 1012C(6) of the Corporations Act.

  Note: An entity may need to obtain appropriate warranties from subscribers for the securities in order to be able to give this warranty

- Section 724 or section 1016E of the Corporations Act does not apply to any applications received by us in relation to any ⁺securities to be quoted and that no-one has any right to return any ⁺securities to be quoted under sections 737, 738 or 1016F of the Corporations Act at the time that we request that the ⁺securities be quoted.

- If we are a trust, we warrant that no person has the right to return the ⁺securities to be quoted under section 1019B of the Corporations Act at the time that we request that the ⁺securities be quoted.

3 We will indemnify ASX to the fullest extent permitted by law in respect of any claim, action or expense arising from or connected with any breach of the warranties in this agreement.

4 We give ASX the information and documents required by this form. If any information or document is not available now, we will give it to ASX before ⁺quotation of the ⁺securities begins. We acknowledge that ASX is relying on the information and documents. We warrant that they are (will be) true and complete.
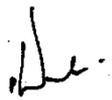
Sign here: ....   Date 22 January 2019
            (Company Secretary)
Print name: Peter Webse

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Appendix 3B – Annexure 1

Calculation of placement capacity under rule 7.1 and rule 7.1A for eligible entities

Introduced 01/08/12 Amended 04/03/13

Part 1

Rule 7.1 – Issues exceeding 15% of capital	
Step 1: Calculate "A", the base figure from which the placement capacity is calculated	
Insert number of fully paid ⁺ordinary securities on issue 12 months before the ⁺issue date or date of agreement to issue	951,731,210
Add the following: • Number of fully paid ⁺ordinary securities issued in that 12 month period under an exception in rule 7.2	24,083,334 (Comprising the issue of Shares on exercise of options)
• Number of fully paid ⁺ordinary securities issued in that 12 month period with shareholder approval • Number of partly paid ⁺ordinary securities that became fully paid in that 12 month period *Note:* • *Include only ordinary securities here – other classes of equity securities cannot be added* • *Include here (if applicable) the securities the subject of the Appendix 3B to which this form is annexed* • *It may be useful to set out issues of securities on different dates as separate line items*	1,425,597 Shares issued on 29/11/2018 which was approved by shareholders on 29/11/2018 70,027,777 Shares issued on 20/11/2018 which was approved by shareholders on 18/01/2019 3,999,999 Shares issued on 21/1/2019 which was approved by shareholders on 18/01/2019
Subtract the number of fully paid ⁺ordinary securities cancelled during that 12 month period	-
"A"	1,051,267,917

Step 2: Calculate 15% of "A"	
"B"	0.15 *[Note: this value cannot be changed]*
Multiply "A" by 0.15	157,690,187

Step 3: Calculate "C", the amount of placement capacity under rule 7.1 that has already been used		
Insert number of +equity securities issued or agreed to be issued in that 12 month period *not counting* those issued: • Under an exception in rule 7.2 • Under rule 7.1A • With security holder approval under rule 7.1 or rule 7.4 *Note:* • *This applies to equity securities, unless specifically excluded – not just ordinary securities* • *Include here (if applicable) the securities the subject of the Appendix 3B to which this form is annexed* • *It may be useful to set out issues of securities on different dates as separate line items*	880,000 8,900,000	unlisted options issued on 23/7/18 unlisted options issued on 22/1/19
"C"	9,780,000	

Step 4: Subtract "C" from ["A" x "B"] to calculate remaining placement capacity under rule 7.1	
"A" x 0.15 *Note: number must be same as shown in Step 2*	157,690,187
Subtract "C" *Note: number must be same as shown in Step 3*	9,780,000
Total ["A" x 0.15] – "C"	147,910,187 *[Note: this is the remaining placement capacity under rule 7.1]*

+ See chapter 19 for defined terms.

Part 2

Rule 7.1A – Additional placement capacity for eligible entities	
Step 1: Calculate "A", the base figure from which the placement capacity is calculated	
"A" *Note: number must be same as shown in Step 1 of Part 1*	1,051,267,917
Step 2: Calculate 10% of "A"	
"D"	0.10 *Note: this value cannot be changed*
Multiply "A" by 0.10	105,126,791
Step 3: Calculate "E", the amount of placement capacity under rule 7.1A that has already been used	
Insert number of ⁺equity securities issued or agreed to be issued in that 12 month period under rule 7.1A *Notes:* • *This applies to equity securities – not just ordinary securities* • *Include here – if applicable – the securities the subject of the Appendix 3B to which this form is annexed* • *Do not include equity securities issued under rule 7.1 (they must be dealt with in Part 1), or for which specific security holder approval has been obtained* • *It may be useful to set out issues of securities on different dates as separate line items*	-
"E"	-
Step 4: Subtract "E" from ["A" x "D"] to calculate remaining placement capacity under rule 7.1A	
"A" x 0.10 *Note: number must be same as shown in Step 2*	105,126,791
Subtract "E" *Note: number must be same as shown in Step 3*	-
Total ["A" x 0.10] – "E"	105,126,791