

**CANARA ROBECO ASSET MANAGEMENT COMPANY LIMITED**

**REQUEST FOR PROPOSAL FOR PROCUREMENT  
AND IMPLEMENTATION OF UNIFIED STORAGE SOLUTION**

**TABLE OF CONTENTS**

1.	INTRODUCTION .....	3
1.1	AN OVERVIEW OF CANARA ROBECO .....	3
1.2	BID DETAILS.....	3
1.3	PURPOSE AND REQUIREMENT .....	3
1.4	INVITATION .....	4
2.	MINIMUM ELIGIBILITY CRITERIA: .....	4
3.	SCOPE OF WORK .....	5
4.	BID TERMS: .....	5
4.1	GENERAL .....	5
4.2	SUBMISSION OF PROPOSAL.....	6
5.	VALUATION OF THE PROPOSALS.....	7
5.1	TECHNICAL BID EVALUATION PROCESS.....	8
5.2	SCORING METHODOLOGY FOR IMPLEMENTATION, SUPPORT AND MAINTENANCE REQUIREMENTS.....	8
5.3	DISQUALIFICATION PARAMETERS IN TECHNICAL BID EVALUATION .....	8
5.4	COMMERCIAL BID EVALUATION .....	8
5.5	FINAL EVALUATION / TECHNO-COMMERCIAL Evaluation .....	9
5.6	SELECTION CRITERIA .....	9
6.	AWARDING OF CONTRACT.....	9
6.1	ACCEPTANCE FROM THE BIDDER.....	9
7	SCOPE OF WORK FOR PROCUREMENT, INSTALLATION AND SUPPORT FOR STORAGE.....	10
7.1	TERMS OF PAYMENT .....	10
7.2	SERVICE TERMS & CONDITIONS .....	10
7.3	SUPPORT AND MAINTENANCE SPECIFIC TERMS.....	10
8.	GENERAL TERMS & CONDITIONS .....	11

8.1	RULES FOR RESPONDING TO THIS RFP .....	12
8.2	PRICE BIDS .....	14
8.3	CANCELLATION OF THE ORDER .....	14
8.4	PENALTY.....	15
8.5	FORCE MAJEURE.....	15
	ANNEXURE A .....	16
	Compliance Sheet for Specifications of Unified Storage System-at Primary Data Centre .....	16
	ANNEXURE B .....	19
	FORMAT FOR TECHNICAL BID .....	19
	I. BID COVERING LETTER:.....	19
	II. BIDDER DETAILS: .....	20
	III. DETAILS OF TECHNICAL BID: .....	21
	ANNEXURE C .....	25
	CUSTOMER REFERENCE .....	25

## 1. INTRODUCTION

### 1.1 AN OVERVIEW OF CANARA ROBECO

Canara Robeco Asset Management Company Limited (also referred to as "CANARA ROBECO") is a premier Asset Management Company in India and has been managing all the Schemes of Canara Robeco Mutual Fund. The Corporate Office of CANARA ROBECO is located at Construction House, 4th Floor, 5, W.H.Marg, Ballard Estate, Mumbai 400 001, India. CANARA ROBECO has a nationwide network of branch offices.

### 1.2 BID DETAILS

<b>Date of issue of RFP</b>	10 <sup>th</sup> October 2018
<b>Last date and time for submission of Technical Bid</b>	16 <sup>th</sup> October 2018, 6.00 PM
<b>Date and Time of opening of Technical Bid</b>	18 <sup>th</sup> October 2018, 3.00 PM
<b>Inform Selected Bidders for submit Commercial Bid</b>	19 <sup>th</sup> October 2018, 3.00 PM via email / Call
<b>Last date and Time for Submission of Commercial Bid</b>	23 <sup>rd</sup> October 2018, 6.00 PM
<b>Date and Time of opening of Commercial Bid</b>	24 <sup>th</sup> October 2018, 3.00 PM
<b>Place of Opening of Bids</b>	Canara Robeco Asset Management Ltd., 4 <sup>th</sup> Floor, Construction House, Ballard Estate, Walchand Hirachand Marg, Mumbai - 400001
<b>Address for communication</b>	Canara Robeco Asset Management Ltd., 4 <sup>th</sup> Floor, Construction House, Ballard Estate, Walchand Hirachand Marg, Mumbai - 400001

### 1.3 PURPOSE AND REQUIREMENT

**This Request for Proposal ("RFP") is to invite proposal for:**

**Project: Procurement & Installation of Unified Storage Solution at the Corporate Office of CANARA ROBECO.**

CANARA ROBECO invites proposals from competent and authorized Bidders for supply and complete installation of Storage Area Network Solution (1 No.), which will host the database and application files of all applications along with file systems residing in our data centre at Head Office (Ballard Estate), Mumbai. The Bidder shall perform basic installation of storage box.

The Bidder should be an authorized partner of the Principal/ Original Equipment Manufacturer ("OEM") and should have required certified technical resources to install, configure and provide on-site comprehensive support of the proposed equipment during the warranty period (3 years).

The Bidder should ensure 100% Support Back Lining with respective Principal/OEM for a period of 3 years. After completion of 3 years of initial warranty & support, CANARA ROBECO may enter into an AMC for maintenance & support of the product, provided the Bidder has 100% support back lining with the OEM/ Principal during the tenure of AMC.

The installation will be the Bidder's responsibility and it shall engage with the Principal/OEM for any Professional Services, if deemed necessary.

The selected Bidder may be required to sign a Service Level Agreement ("SLA") with CANARA ROBECO, covering all the terms & conditions of support and maintenance.

The correct Part Numbers for each of the products shall be mentioned by the Bidder in the Technical Bid format attached as **Annexure B**. If the configuration of the storage does not match with CANARA ROBECO's requirements and/or if all the Part Numbers are not stated correctly in the Technical Bid, the proposal of the Bidder will not be considered for further technical evaluation.

**LUNs created on the proposed storage box will be presented to the servers through ISCI switches (2No.s). The Bidder shall perform soft zoning on ISCI switches for connectivity. The proposed storage should be eligible for active support from the concerned OEM for next (3) years from the date of installation at CANARA ROBECO.**

**The bidder through the OEM must mention the date of launch of the proposed product and also, certify that the proposed product/ solution will be under active support of the OEM for next 3 years from the date of installation at CANARA ROBECO.**

The Bidder should quote the relevant model as per the specifications mentioned below. The specification of the Unified storage for the Production environment (1 No.) at our corporate office is clearly mentioned on the Compliance Sheet enclosed as **Annexure A**. The specifications and configuration of the proposed SAN Storage System is as follows:

**Quantity – One (1):- Unified Storage System at Primary Data Centre**

**(Please refer to Annexure A for technical and other Specifications of the SAN Storage System).**

#### **1.4 INVITATION**

Bidders desirous of offering their service as specified at Para 1.3 above may submit their technical and commercial proposals in response to this RFP. The criteria and actual process of evaluation of response to this RFP and subsequent selection of the successful bidder shall be entirely at the discretion of CANARA ROBECO.

This RFP seeks proposals from bidders who have necessary experience, capacity, capability and expertise to provide storage services as per the requirement of CANARA ROBECO as outlined in this RFP.

This RFP is not an offer by CANARA ROBECO, but an invitation to receive responses from the bidders. No contractual obligation shall arise from this RFP process.

#### **2. MINIMUM ELIGIBILITY CRITERIA:**

The minimum eligibility criteria for participating in the RFP have been listed in this section. All Bidder are requested to study the pre-qualification criteria listed below carefully and submit the bids only if they fully qualify for bidding for the relevant services.

- a) The bidder must be a registered corporate in India and should be in similar business for at least last five (05) years. The bidder should be a profitmaking company during the preceding two accounting years. The bidder must submit relevant support documents (such as, company's incorporation certificate, balance sheets for last two years, etc.).
- b) The total revenue of the bidder should be at least Indian Rupees 15-20 Crores or equivalent in each of the last two financial years.
- c) The bidder should be an authorized enterprise partner of the Principal/ OEM of the product proposed. The bidder should submit Manufacturer's Authorisation Form ("MAF") of the OEM to CANARA ROBECO in this regard.
- d) The bidder should be in a position to provide required installation, maintenance and support services of all the products/ equipment's during the warranty as well as the post-warranty period through maintenance

contracts and service level agreements. The bidder must have sufficient number of certified engineers in its company for the solution proposed.

- e) The bidder should have implemented the proposed or similar storage solution of the same Principal/ OEM in at least two (02) corporates/enterprises in the last three (03) years and also, is providing support to similar solution for these customers. The bidder should provide the contact details of the corporates/enterprises and a brief description about the project, year of implementation and project **details involving migration of data from old storage to new storage.**

The bidder must submit relevant documents/ proof (such as, certificate of incorporation, balance sheets, MAF from the OEM, work order copies.) in order to support the above mentioned eligibility criteria. All such documents/proofs must be signed by the authorised signatory of the bidder.

**In case, the bidder fails to submit these and other relevant documents to substantiate the above requisite qualifications as part of the technical proposal, the proposal will be rejected and will not be considered for any further evaluation by CANARA ROBECO.**

### 3. SCOPE OF WORK

The detailed scope of work is as mentioned below:

- a) Rack mount and install the proposed storage box at data centre located at our Head Office - Ballard Estate, Mumbai
- b) Assign initial management IP's
- c) Assign disks and create RAID pools based on CANARA ROBECO's business requirement.
- d) Perform all necessary firmware updates.
- e) Verify proper disk multi-pathing, setup ISCI/iSCSI interfaces with physical servers/ESXi hosts as per business requirements.
- f) Create LUN's for use from proposed SAN storage.
- g) Demonstrate snapshot and Mirror- copies capability.

### 4. BID TERMS:

#### 4.1 GENERAL

CANARA ROBECO reserves the right to revise or alter the scope of the assignment before acceptance of any bid. However, in such an eventuality, the Bidder may be given an opportunity to consider such changes and revise the offer, if found necessary. CANARA ROBECO reserves the right to abandon the current tender process or cancel and go in for a fresh tender at any point of time without assigning any reason whatsoever. All disputes and controversies between CANARA ROBECO and Bidder shall be subject to the exclusive jurisdiction of the Courts in Mumbai and the parties agree to submit themselves to the jurisdiction of courts in Mumbai. This RFP shall be governed by the laws of India.

In case the products/ services offered deviates from the specifications of the products/ services as described in this RFP, the Bidder should describe in what respect and to what extent the products/ services offered by him differs from our specifications even if the deviation is not very material.

The Bidder must quote part numbers of all the components of the Server/Storage as per the specifications of the RFP Technical proposal, without which the Bid will be rejected by CANARA ROBECO.

The Bidder shall to quote commercials as per the format of Commercial Bid. The commercial Bid format shall be given only to the Bidders who are "technically qualified" under the Technical Bid.

The price/rate quoted by the Bidder cannot be altered or changed due to escalation of cost of the

material/equipment. The price/rate quoted should be all inclusive prices, i.e., it shall include taxes, levies, duties, insurance, transportation etc.

Bidders should ensure that they meet the eligibility criteria mentioned for offering bids.

#### 4.2 SUBMISSION OF PROPOSAL

- a) The bids prepared by the bidder and all correspondence & documents relating to the bid must be in writing and submitted in English.
- b) The Bidder shall submit its Technical compliance of Storage as per Table A and Table B of the RFP.
- c) The Bidder shall furnish the details of past experiences of executing similar assignments to large clients in **Annexure C** (Customer Reference).
- d) The Bidder will have to submit the details of top 3 assignments on the basis of value of order, wherein the Bidder has executed similar assignments as per **Annexure C** (Customer Reference) of the RFP. CANARA ROBECO reserves the right to check with these customers about the credibility of the Bidder and quality of service provided by the Bidder. Also, CANARA ROBECO may ask the Bidder to arrange for site visit at any of the existing customers.
- e) CANARA ROBECO reserves the right to adjust arithmetical or other errors in RFP, in the manner in which it considers suitable/deem fit. Any adjustments so made by CANARA ROBECO shall be stated to the Bidder, if CANARA ROBECO makes an offer to accept the Bidder's proposal.
- f) Bids should be valid up to 7 days from the above-mentioned submission date.
- g) Bidders shall submit their offers strictly in accordance with the terms and conditions of RFP Document(s) as stated therein/herein. Any proposal, which stipulates conditions contrary to the conditions given in the RFP Document(s) is liable for rejection.
- h) The Bidder shall (whether or not he submits the bid) treat the details of the RFP Document(s) as confidential at all times.
- i) CANARA ROBECO will not pay the Bidder any expenses, which may have been incurred in the preparation of the RFP Document(s) for submission.
- j) Wilful misrepresentation of any fact within the Bid may lead to rejection of the Bid without prejudice to any other action that CANARA ROBECO may take. All the submissions made by the Bidder, including any accompanying documents, will become property of CANARA ROBECO.
- k) All pages of the Bid document shall be serially numbered and shall be signed by the authorised signatory of the Bidder. Any erasures or overwriting shall be valid only if the authorised signatory signing the bid authenticates them.
- l) The Bid shall be submitted along with a covering letter and in a closed (sealed) envelope.
- m) Any effort on part of the Bidder to influence the bid evaluation process or award of contract may result in rejection of the Bid.
- n) The Bidder shall have complied with all requirements of law for submitting the bid to this RFP and for performance of the contract.
- o) CANARA ROBECO does not bind itself to accept the lowest or any bid to this RFP and reserves the right to reject all or any bid or cancel the RFP without assigning any reason whatsoever. CANARA ROBECO has the right to re-issue the RFP without the Bidders having the right to object to such re-issue.

- p) In case any Bidder desires to seek clarification on any aspect of the RFP before submitting the proposal, you may contact Mr. Vivek Mhatre, Manager (IT), Ph.: 66585041 and Mail: Vivek.mhatre@canararobeco.com

**Details of the tender notification are as follows**

Last Date for Submission	Up to (Time)	On (Date)
	18.00 Hrs	16 <sup>th</sup> October 2018
Pre-bid meeting with prospective bidders		
Pre-Bid meeting will be arranged, if necessary.		
Address for submission of bids		
Canara Robeco Asset Management Company Ltd, Construction House, 4th Floor, 5, W.H.Marg, Ballard Estate, Mumbai 400 001, India		
Date of Opening of the Technical Bids	(Time)	(Date)
	15.00 Hrs	18 <sup>th</sup> October 2018
Date of Opening of Commercial Bids	(Time)	(Date)
	15.00 Hrs	24 <sup>th</sup> October 2018

For any clarification, the bidders may contact:

Mr. Vivek Mhatre, Canara Robeco AMC Ltd  
 Email: Vivek.mhatre@canararobeco.com  
 Phone: +91-22-66585041

Bids need to be received latest by 18.00 hours on 16.10.2018. Please ensure that all the documents are attached while submitting the tender. All the proposals/documents should be addressed to:

The Head – Information Technology  
**Canara Robeco Asset Management Company Limited**  
 Construction House, 4th Floor, 5, W.H.Marg, Ballard Estate,  
 Mumbai 400 001, India

**5. VALUATION OF THE PROPOSALS**

CANARA ROBECO will evaluate only those proposals, which meet the eligibility criteria as well as complete in all respects, for comparison and final selection. The evaluation criteria for selection shall be based on the requirements of CANARA ROBECO and the delivery/installation schedules of the Bidder and previous customer's feedback on products and services of the Bidder. Also, sufficient expertise and experience of the Bidder during the last three (03) years in carrying out similar assignments for other companies and the eligibility criteria as given in the RFP will be part of the evaluation criteria.

The objective of the evaluation process is to evaluate the bids to select an effective solution at a competitive price with overall Total Cost of Ownership in mind.

- Bidder would be entrusted with end-to-end responsibility for the execution of the project under the scope of this RFP. The Bidder is expected to commit for the delivery of solution and services with performance

levels set out in this RFP.

- CANARA ROBECO has adopted a two bid process in which the bidder has to submit (1) Technical Bid and (2) Commercial Bid separately within the stipulated time. As part of the technical bid, the bidder is also required to submit the details and the supporting documents as per the “Minimum Eligibility Criteria” as mentioned in the RFP.
- CANARA ROBECO shall evaluate the Technical Bids initially and based on Technical Bid evaluation, Commercial Bid evaluation would be undertaken only in respect of the technically qualified proposals.
- The evaluation by CANARA ROBECO will be undertaken by a Committee of Officials formed by CANARA ROBECO and its decision shall be final.

### **5.1 TECHNICAL BID EVALUATION PROCESS**

The proposals submitted by the Bidders shall be evaluated on technical grounds covering various components of the project as follows:

- Product specifications as per the requirements of CANARA ROBECO
- Delivery and implementation of the products & services proposed
- On-going Maintenance and Support Services of the Bidder
- Bidder’s Company Profile
- Past experience of the Bidder in implementing similar project and customer feedbacks based on the references provided.

The Bidder must qualify as per the Minimum Eligibility Criteria as mentioned above in this RFP. Evaluation of the Technical Bids of the qualified Bidders only will be undertaken by CANARA ROBECO.

### **5.2 SCORING METHODOLOGY FOR IMPLEMENTATION, SUPPORT AND MAINTENANCE REQUIREMENTS**

- The Bidders should provide the details of all the implementations of the similar solutions including details of Scope of Project, Number of locations/ customers, etc. as defined in Customer References. It is expected that the bidder provides the details for each of the implementations separately covering the complete scope of work.
- The details provided should be verifiable and the speed of implementation, project closure, etc. will be rated by CANARA ROBECO and scores assigned.
- A Committee of officials from CANARA ROBECO may also carry out Reference Site Visits and/or Telephonic Interviews with the existing customers of the Bidder. The inputs that have been received from the Customers will be considered by CANARA ROBECO and this may not need any documentary evidence. This rating will be purely on the inputs provided by the customers of the bidders.

CANARA ROBECO at its discretion may reject any proposal without giving any reasons whatsoever, in case the responses received from the customers, based on either Site Visits or Telephonic Interviews, are negative.

### **5.3 DISQUALIFICATION PARAMETERS IN TECHNICAL BID EVALUATION**

The Bids, which do not meet the stipulated criteria in technical evaluation will not be considered for commercial evaluation. CANARA ROBECO at its discretion may reject the proposal of any Bidder without giving any reason whatsoever, if in CANARA ROBECO’s opinion, the solution is not made appropriately to meet the performance criteria as stipulated by CANARA ROBECO.

### **5.4 COMMERCIAL BID EVALUATION**

The Bids which are "Technically Qualified" will only be considered for Commercial Bid evaluation.

CANARA ROBECO will send email communication to shortlisted Bidders and will call for opening of commercial bids.

## **5.5 FINAL EVALUATION / TECHNO-COMMERCIAL Evaluation**

For final selection of the Bidders, technical bid evaluation is given a weight of 70% and the commercial bid evaluation, based on Reverse Auction, a weight of 30%. CANARA ROBECO reserves the right to further negotiate the contract price/terms with the selected Bidder.

## **5.6 SELECTION CRITERIA**

Opening of technical bids: The technical bids shall be opened in the presence of CANARA ROBECO's technical evaluation committee members on the date specified in the RFP.

CANARA ROBECO reserves its right to change the date and time for opening the technical bids under intimation to all the bidders.

Commercial bids shall be opened for the qualified bidders, who are short listed after technical evaluation. Commercial bids should be submitted/quoted without errors. Any change/errors in the commercial bids may lead to disqualification of commercial proposal.

## **6. AWARDING OF CONTRACT**

The Bidder who has qualified in technical and commercial evaluation will be selected. CANARA ROBECO will notify the successful bidder in writing by letter in duplicate that its bid has been accepted. The selected Bidder has to return the duplicate copy to CANARA ROBECO within seven (7) working days, duly accepted and signed by the authorised signatory of the Bidder in token of acceptance.

### **6.1 ACCEPTANCE FROM THE BIDDER**

- The contract/work order shall be awarded, and the order shall be placed on selected Bidder. CANARA ROBECO reserves the right to release the order either in Full or in part or place more than one order towards the contract.
- The selected Bidder shall submit the acceptance of the order within seven working days from the date of receipt of the order. No conditional or qualified acceptance shall be permitted. The effective date for start of provisional contract/work order with the Selected Bidder shall be the date of acceptance of the order by the Bidder.
- On failure of the selected Bidder to accept the order within stipulated time, CANARA ROBECO shall be at liberty to proceed with the other technically qualified Bidder within the purview of the same RFP either by calling for fresh commercial quotes or considering the existing commercial quotes. The initially selected Bidder stands disqualified for further participation in the subsequent bid.
- It has to be understood that this document is merely a 'Request for Proposal' containing the minimum requirements to be complied with by each Bidder and is not conclusive of all the terms and conditions in respect of engagement of services of the Selected Bidder. The Selected Bidder may be required to execute an agreement/work order with CANARA ROBECO, if considered necessary, on mutually agreed terms and conditions, failing which any payments to the Selected Bidder shall be withheld until execution of such final agreement. Until execution of the final agreement/ service level agreement/work order, as the case may be, the services contemplated herein shall be governed by the terms and conditions contained in this RFP.

## **7 SCOPE OF WORK FOR PROCUREMENT, INSTALLATION AND SUPPORT FOR STORAGE**

The selected Bidder shall supply and install the storage systems as per technical specifications mentioned in our RFP. The Bidder shall ensure that all the equipment installed by the Bidder provide the desired results at all times without any inconvenience to CANARA ROBECO.

The products will have three (03) years' onsite comprehensive warranty with same day support from the Bidder.

During the warranty period of all the products, the Bidder shall be able to provide necessary replacements of the equipment or parts of the equipment as well as timely support to CANARA ROBECO through qualified manpower on the same business day.

The selected Bidder shall be able to provide maintenance of all the products and support thereof to CANARA ROBECO after expiry of warranty period through an Annual Maintenance Contract as per the terms and conditions agreed between the selected Bidder and CANARA ROBECO.

The selected Bidder shall provide training to effectively manage and monitor the storage infrastructure.

The price/rate quoted by the Bidder cannot be altered or changed due to escalation on account of variation in taxes, levies and cost of material. The price/rate quoted should be all inclusive price, i.e., it shall include taxes, levies, duties, insurance, transportation etc.

All applicable taxes would be deducted at source at the applicable rate while making the payment.

### **7.1 TERMS OF PAYMENT**

The payment terms of the assignment will be as follows:

- 20% with Purchase Order
- 70% after successful delivery and installation.
- The balance 10% will be paid after completion of 3 years from date of installation of Product.

### **7.2 SERVICE TERMS & CONDITIONS**

The selected Bidder will be responsible for any mishap or accident during the installation /maintenance of the equipment which may occur due to negligence on part of the Bidder.

The Bidder shall pay and be responsible for payment of all taxes, duties, levies, fees, costs or charges in respect of the products supplied / services rendered to CANARA ROBECO as part of the assignment.

The Bidder shall indemnify and keep indemnified CANARA ROBECO against claims in respect of above taxes, levies, duties, fees, costs, charges etc. All of the aforesaid taxes, duties, levies, fees, costs and charges shall be to the Bidder's account and CANARA ROBECO shall not be required to pay any additional or extra amount on account of variation of the above charges if any, till the completion of work to the satisfaction of CANARA ROBECO and no extra claim on this account will be entertained in any case.

### **7.3 SUPPORT AND MAINTENANCE SPECIFIC TERMS**

The selected Bidder will provide on-site comprehensive maintenance services including repairs/ replacement of faulty parts for all equipment.

The selected Bidder will undertake that supplies of necessary maintenance equipment, tools and spare parts will be made available on a continuous basis.

The selected Bidder should provide equivalent or higher stand-by equipment in case the problem is not

resolved within the stipulated time.

In case the system is found non-repairable or is taking prolonged time in repair, it is Bidder's liability to provide a standby system within agreed time. This time shall be from the time of call logging and not the time of call attending. Product provided as a standby shall be a workable solution and may or may not be the exact configuration product. In such cases, permanent replacement shall be provided with equivalent or higher configuration part/system only within maximum 7 days of call logging. This shall be done at no extra cost to CANARA ROBECO.

The cost and consequences, if any, would be borne by the Bidder for the maintenance of the equipment.

All parts replaced by the Bidder must be new and of the same specification and make or, if such parts are not available in the market, parts of different make and quality would be accepted, provided such request is made in writing.

The Bidder should have enough spares in its inventory to service the equipment during the term of warranty/agreement. The spares should be of good quality, and should not endanger the brand-integrity of CANARA ROBECO's equipment.

Insurance and any other charges for products/parts in movement for repair to and from Bidder's workshop shall be the liability of the Bidder. However, CANARA ROBECO shall provide necessary documents required by courier Company for movement of Hardware.

## **8. GENERAL TERMS & CONDITIONS**

- The Bidders shall adhere to the terms of this RFP and shall not deviate from the same. If the Bidders have absolutely genuine issues only then should they provide their nature of non-compliance to the same in the format provided in the RFP. CANARA ROBECO reserves its right to accept such deviations to the Tender terms, in its sole and absolute discretion, and shall not be obliged to furnish any reason for exercising such right.
- Unless agreed to specifically by CANARA ROBECO in writing for any changes to the RFP issued, the Bidders responses would not be incorporated automatically in the RFP document.
- Unless expressly overridden by the specific agreement to be entered into between CANARA ROBECO and the successful Bidder, the RFP shall be the governing document for arrangement between CANARA ROBECO and the Bidders.
- The information contained in this Request for Proposal (RFP) document or information provided subsequently to Bidder whether verbally or in documentary form/email by or on behalf of CANARA ROBECO, is subject to the terms and conditions set out in this RFP document and all other terms and conditions subject to which such information is provided. This RFP is neither an agreement nor an offer and is only an invitation by CANARA ROBECO to the interested parties for submission of bids. The purpose of this RFP is to provide the Bidder(s) with information to assist the formulation of their proposals. This RFP does not claim to contain all the information each Bidder may require. Each Bidder should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information in this RFP and where necessary obtain independent advices/clarifications.
- No contractual obligation whatsoever shall arise from this RFP, unless a work order/agreement is duly executed by CANARA ROBECO and signed by its authorised signatories with the selected Bidder.
- CANARA ROBECO, its employees and advisors make no representation or warranty and shall have no liability to any person, including any Applicant or Bidder under any law, statute, rules or regulations or

principles of restitution or unjust enrichment or otherwise for any loss, damages, cost or expenses which may arise from or be incurred or suffered on account of anything contained in this RFP or otherwise, including the accuracy, adequacy, correctness, completeness or reliability of the RFP and any assessment, assumption, statement or information contained therein or deemed to form part of this RFP or arising in any way for participation in this Bid Stage. CANARA ROBECO also accepts no liability of any nature whether resulting from negligence or otherwise, howsoever caused arising from reliance of any Bidder upon the statements contained in this RFP.

- Filling up of the information using terms such as 'OK', 'Accepted', 'Noted', 'As per brochure' etc. is not acceptable to CANARA ROBECO. The Bidder should provide detailed information wherever applicable.
- The responses should be clear and not ambiguous. Bidder should not respond to any section like 'Clarifications', 'As orally told', 'to be discussed', 'interpretations', etc.
- To assist in the scrutiny, evaluation and comparison of offers, CANARA ROBECO may, at its discretion, ask any of the Bidders for clarifications to their offer.
- Consortium bid is not allowed as part of the response to the RFP.
- Bidders shall observe highest standard of ethics during the Bidding process. CANARA ROBECO reserves the right to reject any Bid without being liable in any manner whatsoever to the Bidder, if it determines that the Bidder was directly or indirectly engaged in corrupt/ fraudulent/coercive/undesirable or restrictive practices in the bidding process.

#### **8.1 RULES FOR RESPONDING TO THIS RFP**

- Last date for submission of bids is 16<sup>th</sup> October 2018, at 18:00 hrs.
- All responses should be in English language. All responses by the Bidders to this RFP document shall be binding on such Bidders for a period of 120 days after the opening of the commercial bids. The Bidders must acquaint themselves fully with the conditions of the bids. No plea for insufficient information will be entertained at any time.
- All responses including commercial and technical bids would be deemed to be irrevocable offers/proposals from the Bidders and may if accepted by CANARA ROBECO form part of the final contract between CANARA ROBECO and the selected Bidder. Bidders are requested to attach a letter from an authorized signatory authorised to bind the Bidders to the terms and conditions of the RFP, attesting the veracity of information provided in the responses. Unsigned responses would be treated as incomplete and are liable to be rejected.
- Any technical or commercial bid, submitted cannot be withdrawn / modified after the last date for submission of the bids unless specifically permitted in writing by CANARA ROBECO.
- The Bidder may modify its offer after receipt by CANARA ROBECO by issuing a written notice for modification. A modified offer shall have to be submitted prior to the closing date and time prescribed for submission of offers. No offer (including a modified offer) can be modified by the Bidder subsequent to the closing date and time for submission of the offers. Additionally, no offer can be withdrawn after the closing date and time for submission of the offers. For any valid withdrawal of offer, the request for withdrawal must be received by CANARA ROBECO prior to the closing date and time for submission of the offers.
- The Bidders are required to quote for all the components mentioned in the Technical Specifications and Scope of Work sections of this document. In case any Bidder does not quote for any of the components, the response would be deemed to include the quote for such unquoted components. It is mandatory to

submit the technical details in the format attached as **Annexure B** given along with this RFP duly filled in, along with the offer. CANARA ROBECO reserves the right not to permit changes in the technical specifications and not to evaluate the offer in case of non-submission of the technical details in the required format or partial submission of technical details.

- Based on the CANARA ROBECO's requirements as listed in this RFP, the Bidders should identify the best-suited solution that would meet CANARA ROBECO's requirements and quote for the same. The Bidders are expected to select the best option and quote for the same in their offer. Any non-compliance with this term of the RFP would make the bid incomplete and liable to be rejected.
- Each offer should specify only a single solution, which is cost-effective and meeting the entire Tender specifications. It is the responsibility of the Bidder to decide the best suitable solution.
- In the event the Bidder has not quoted for any mandatory or optional items as required by the Bidder and forming a part of the RFP document circulated to the Bidders and responded to by the Bidders, the same will be deemed to be provided by the Bidder at no extra cost to CANARA ROBECO.
- CANARA ROBECO is not responsible for any assumptions or judgments made by the Bidders for arriving at any type of sizing or costing. CANARA ROBECO at all times will benchmark the performance of the Bidder to the RFP documents circulated to the Bidders and the expected Service levels as mentioned in these documents. In the event of any deviations from the requirements of these documents, the Bidder must make good the same at no extra costs to CANARA ROBECO, in order to achieve the desired Service levels as well as meeting the requirements of these documents.
- CANARA ROBECO asserts and concludes that everything as mentioned in the RFP documents circulated to the Bidders and responded by the Bidders have been quoted for by the Bidders, and there will be no extra cost associated with the same other than the cost quoted by the Bidder.
- In the event CANARA ROBECO has not asked for any quotes for alternative prices, and the Bidder furnishes the alternative price in the Bidders financial bid, the higher of the prices will be taken for calculating and arriving at the Total Cost of Operations for the purpose of evaluation. However payment by CANARA ROBECO will be made at the lower price.
- In the event optional prices are not quoted by the Bidder, for items where such prices are a must and required to be quoted for, the highest price quoted by any of the participating Bidder will be taken as the costs, for such alternatives and also for arriving at the Total Cost of Ownership for the purpose of evaluation of the defaulting / deviating Bidder.
- All out of pocket expenses, travelling, boarding and lodging expenses for the entire completion of the Project should be a part of the financial bid submitted by the Bidder to CANARA ROBECO. No extra costs on account of any items or Services or by way of any out of pocket expenses, including travel, boarding and lodging etc. will be payable by CANARA ROBECO. The Bidder cannot take the plea of omitting any charges or costs and later lodge a claim on CANARA ROBECO for the same.
- The Bidders at no point in time can excuse themselves from any claims by CANARA ROBECO whatsoever for their deviations in conforming to the terms and conditions, payments schedules, time frame for implementation etc. as mentioned in the RFP documents circulated by CANARA ROBECO. Bidder shall be fully responsible for deviations to the terms & conditions, project schedule etc. as proposed in the RFP Technical Evaluation criterion.
- CANARA ROBECO will only pay for Services procured and used by CANARA ROBECO. CANARA ROBECO will not pay or is not bound to pay for Services not procured or used by CANARA ROBECO. The Bidder cannot compel CANARA ROBECO to procure or pay for items or Services not desired by CANARA ROBECO.
- CANARA ROBECO would like to expressly state that any assumptions, terms, conditions, deviations etc.,

which the Bidder includes in any part of the Bidders response to this RFP, will not be taken into account either for the purpose of evaluation or at a later stage, unless such assumptions, terms, conditions, deviations etc., have been accepted by CANARA ROBECO and communicated to the Bidder in writing. The Bidder at a later date cannot make any plea of having specified any assumptions, terms, conditions, deviations etc., in the Bidder's response to this RFP.

- The Bidder, from time to time, should provide price benefits to CANARA ROBECO, in the event that the prices of any proposed items or Services have reduced. Such price benefits would be discussed mutually by CANARA ROBECO and the Bidder. In the event the Bidder does not offer the price benefit to CANARA ROBECO, CANARA ROBECO will have the right to independently procure the same from the market and the Bidder will have no objection to the same.

## 8.2 PRICE BIDS

- Bidders are requested to quote in Indian Rupees ('INR'). Bids in currencies other than INR would not be considered.
- The prices and other terms offered by Bidders must be firm for an acceptance period of 120 days from the last date of opening the commercial bid.
- CANARA ROBECO will not pay any other charges / fees other than the charges specified by the Bidder.

The prices quoted by the Bidder shall include all costs such as, GST, levies, cess, excise and custom duties, installation, insurance etc. that need to be incurred. The prices quoted will also include transportation to respective sites, and insurance till completion of the Project. Necessary documentary evidence should be produced for having paid the customs / excise duty, sales tax, if applicable, and or other applicable levies.

- In case of any variation (upward or down ward) in Government levies / GST/cess / excise / custom duty etc. which has been included as part of the price will be borne by the Bidder. Variation would also include the introduction of any new tax / cess/ excise, etc. The benefit or burden of other taxes quoted separately as part of the commercial bid like GST shall be passed on or adjusted to CANARA ROBECO. If the Bidder makes any conditional or vague offers, without conforming to these guidelines, CANARA ROBECO will treat the prices quoted as in conformity with these guidelines and proceed accordingly.
- Terms of payment as decided by CANARA ROBECO will be final and binding on the Bidder and no interest will be payable by CANARA ROBECO on outstanding amounts under any circumstances. If there are any clauses in the Invoice contrary to the terms agreed under an agreement or work order or otherwise, the Bidder should give a declaration on the face of the Invoice or by a separate letter explicitly stating as follows "Clauses, if any contained in the Invoice which are contrary to the terms contained in the Agreement/Work Order will not hold good against CANARA ROBECO and that the Invoice would be governed by the terms contained in the Contract concluded between CANARA ROBECO and the Bidder". Bidder should ensure that the project should not suffer for this reason.
- CANARA ROBECO shall be under no obligation to accept the lowest or any other bid received in response to this bid notice and shall be entitled to reject any or all bids including those received late or incomplete bids without assigning any reason whatsoever. CANARA ROBECO reserves the right to make any changes in the terms and conditions of purchase.
- The Bidder must accept the payment terms proposed by CANARA ROBECO. The commercial bid submitted by the Bidders must be in conformity with the payment terms proposed by CANARA ROBECO. Any deviation from the proposed payment terms would not be accepted. CANARA ROBECO shall have the right to withhold any payment due to the Bidder, in case of delays or defaults on the part of the Bidder. Such withholding of payment shall not amount to a default on the part of CANARA ROBECO.

## 8.3 CANCELLATION OF THE ORDER

CANARA ROBECO reserves its right to cancel the order in the event of one or more of the following situations, which are not occasioned due to reasons solely and directly attributable to CANARA ROBECO alone:

- Delay in supply/ implementation beyond the specified period that is agreed at the time of ordering
- Serious discrepancy in the quality of the product/ service/ software experienced during the implementation
- In case the Bidder is declared insolvent.
- In case of order cancellation, any payments made by CANARA ROBECO to the Bidder will necessarily have to be returned to CANARA ROBECO with interest within 30 days from the date of such notification.
- Any other such reason, by which continuing the business with the Winning Bidder may cause material adverse effect on the business of CANARA ROBECO.

#### **8.4 PENALTY**

- CANARA ROBECO expects the selected bidder to deliver and implement the solution within 4-5 weeks from the date of confirmed order. Inability of the Bidder to either provide the requirements as per the scope or to meet the timelines as specified would be treated as breach of contract and would invoke the penalty clause.
- CANARA ROBECO may impose a penalty of 0.5% of the total order value for delay of each week or part thereof. The overall cap for all the penalties, excluding actual losses due to the proposed solution/system, shall be 10% of the total order value. In the event the project timeframes are impacted due to delays caused solely by CANARA ROBECO, the Bidder will be given additional time (proportionate to the time lost due to the delay) to complete the activity and further the Bidder will not be responsible for any penalties for such delay or resultant extension.
- Penalties on delay will be applicable when the delay is attributable to the Bidder. For the purpose of clarity, no such penalty will be applicable on the Bidder under the clause above, for inability occasioned, if such inability is due to reasons entirely attributable to CANARA ROBECO.

#### **8.5 FORCE MAJEURE**

Any failure or delay by bidder or CANARA ROBECO in performance of its obligation, to the extent due to any failure or delay caused by fire, flood, earthquake or similar elements of nature, or acts of God, war, terrorism, riots, civil disorders, rebellions or revolutions, acts of government authorities or other events beyond the reasonable control of non-performing Party, is not a default or a ground for termination. If Force Majeure situation arises, the Bidder shall promptly notify CANARA ROBECO in writing of such conditions and the cause thereof. Unless otherwise agreed by CANARA ROBECO in writing, the bidder shall continue to perform its obligations agreed as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

**ANNEXURE A**  
Compliance Sheet for Specifications of Unified Storage System-at Primary Data Centre

<b>Technical Specifications of Unified Storage System</b>		
Sr. No.	Component	Requirement
	Model and Make	Unified Storage
1	Storage Architecture	The offered Unified Array should support Canara Robeco requirements of hosting critical applications with minimum <b>5000 Host IOPS</b> for all kinds of work-load with latency of less than 3 ms. The IOPS mentioned are frontend IOPS to be seen by applications. The array should support FC and iSCSI protocol for external connectivity. Proposed SAN solution must have two numbers of controllers for better performance and redundancy. Appropriate disk IOPS must be configured to get above mentioned front-end IOPS at 70:30 R/W ratios.
2	Storage Capacity	The Total Usable capacity should be of <b>17 TB post RAID</b> (preference is to have Dual Disk Parity, viz., RAID 6 kind protection) The array should be scalable to a minimum of 100 Drives or 500 TB behind the same controller pair by adding appropriate number of spindles and disk shelves. The storage should be configured for Auto Tiering license.
3	Spindle Flexibility	Storage array should support SAS drives of 600 GB, 900 GB and 1.2 TB. SSD Drives of 400 GB, 800 GB and 1.6 TB. NL-SAS drives of 2TB, 3TB and 4TB & 6 TB .
4	Array Architecture	Array Architecture: The array should be equipped with 2 Nos. of storage controllers for better performance and redundancy. Each controller should have minimum 2 FC Host ports each at 16 Gbps and should have provision for 2 iSCSI port at 10 Gbps BASE T Copper for future requirements. The controller should support co- existence of iSCSI and FC.
5	LUN Scalability	The array should allow scalability to a 1024 pair.
6	Cache & Cache Protection	Storage Array should be offered with a Minimum cache of 42 GB or more. Cache should be mirrored between Active-Active controllers on separate Inter controller paths. Must support either Cache battery backup or fully automatic de- stage of cache to disks during power failure to prevent possible data loss. The cache must be adaptive and should dynamically change with incoming workload. The storage should not restrict the write cache to value less than 30% of total cache available on SAN controllers.
7	No Single Point of Failure architecture	Storage Array should have No Single Point of Failures (NSPoF), providing high availability at component functional level.

8	O/S support	Industry-leading Operating System platforms including: Windows Server 2008, Windows Server 2012, Windows 2016, Sun Solaris (Version 10 and onwards), Linux. The array system should support Virtualized environment for VMWare 6.5 and Microsoft Hyper-V
9	Global Hot Sparring	System should have capability to designate global hot spares that can automatically be used to replace a failed drive anywhere in the system.
10	Thin provisioning and De-duplication	The storage array must provide thin provisioning for space efficiency as well as reclamation and also, should have an efficient De-Duplication capability for both Block and File data.
11	RAID Support	Must support RAID levels 0,1,10,5 & 6 or provide capability for single disk failure, dual disk failure and mirroring. Must support inter-mixing different RAID groups within storage system. Different type of RAID levels should co-exist within the same array simultaneously to match the different protection requirements of data.
12	Online LUN Migration for flexibility of redeployment.	The array should support online LUN migration (transparent movement of volumes functionality should allow cross RAID migration)
13	Striping capability	The array must support subsystem based striping. <b>Example.</b> If storage has 10 Drives wiyj 1000 IOPS and 400 MB through and in Future if we add more 10 drive in same Pool group then All Luns from that pool should now get 2000 IOPS and 800 MB throughput
14	Real Time & Historical Performance Monitoring Cloud Base	Proposed array should support real time performance IOPS, Throughput etc. Using Cloud base Monitoring and AI Interface which will do corelation of performance. If Any Vendor Providing Anylytic In house tool then that vendor need to Provide additional Hardware for the same ( Canara Robbeco IT will not provide any Compute or storage for the same )
15	Array Management	Easy to use GUI based and web enabled administration interface for configuration,storage management. Storage Management software must include both GUI and CLI tools. It must be able to centrally manage the vendor's complete range of arrays over the network. It must support web-based management. To protect privacy, transmitted between the browser and array must be encrypted using SSL. It must support event auditing for security. The date, time, and nature of the action must also be logged. It should have the ability to monitor the status, performance and configuration with utilization. It should have the ability to collect, store and analyze storage performance data.
16	Non-Disruptive Upgrade	The storage array should allow firmware up-gradation for functionality improvement and enhancements. Must support non-disruptive upgrade of core software. Must support upgrade of existing storage controllers to a future generation controller.
17	Array-based LUN Masking	Must support array-based hardware LUN masking for highest security. Storage must support LUN masking for different hosts and clusters.

18	Protocols	Proposed array should support well-known protocols like FC and iSCSI.
19	Array based copies (Please quote relevant licenses)	The array should support controller based functionality for pointer based snap copies as well as full physical copies (mirror copies). The pointer based snap copies should require minimal space for creation of snapshot. The snap copy feature should be using efficient approach with minimal or nil overhead on the storage controller (vendor to submit a document in this regard). The snap copy should be array-based copy-on first-write snapshot capability. The snapshot must be a readable and writable LUN that can be mounted by a separate host for back up and /or testing. The full physical copy may require a target LUN of same size as parent. The full copy should support incremental updates (delta resync). The full copy must be an independently usable LUN that allows parallel processing without impacting the performance of the production LUN
20	Disaster recovery (please quote relevant licenses)	Storage array should provide hardware based data replication at the array controller level in both Sync (optional) and Async mode. It should support incremental replication after resumption link failure or failback situations
21	Storage System Capabilities	The Storage system should support automatic detection of errors, error logging and notification. It should support pro-active maintenance – self monitoring, and self-diagnosing features.
22	Data-in-place-upgrade	Must support data-in-place upgrade of existing storage controllers to a future generation controller.
23	Storage Monitoring and Analytics Tool	Unified Storage must Bundle with Storage Monitoring and Analytic tool so that Canara Robeco IT team will be able to see the Current performance of the system from those tools Tool should show LUN performance , IOPS , Latency
24	Licenses	All the licenses like snapshots, replication, compression, cloning, monitoring should be provided for maximum capacity of the array so that Canara Robeco does not have to buy additional licenses during upgrade.
25	Support	Vendor should offer min 99.999 % uptime guarantee with 4 hrs response and defective part delivery
26	Warranty and Response Time	3 Years OEM Warranty with 24 x 7 along with 6 Hrs CTR

10 October 2018

**ANNEXURE B**  
**FORMAT FOR TECHNICAL BID**

I. BID COVERING LETTER:

*(to be submitted by the Bidder along with Bid Documents on its letterhead)*

To,

Date:

\_\_\_\_\_  
Head - Information Technology & Office Services,  
Canara Robeco Asset Management Co. Ltd.,  
Construction House, 4th Floor,  
5, W.H.Marg, Ballard Estate,  
Mumbai 400 001, India.

Sir,

**Our bid for RFP no. \_\_\_\_\_ dated \_\_\_\_\_**

In respect of your RFP mentioned above, we hereby return a response in conformity therewith. We are hereby submitting the following Bid Documents:

1. Bidder Details
2. Details of Technical Bid
3. Customer Reference

We confirm that no part of a priced commercial bid has been included in this technical bid. We understand that inclusion, whether by intention or in error, of any part of our pricing data within our technical bid will cause our disqualification.

We have studied the RFP and the compliance sheet carefully and we have obtained all information required to enable us to submit our technical bid and we have satisfied ourselves as to the correctness and sufficiency of our technical bid.

We confirm that our technical bid is not conditional upon the availability of staff, equipment, office space, materials, or anything whatsoever that, we, if successful will be required to provide the Storage Services.

We understand that Canara Robeco is not bound to accept the lowest or any bid it may receive and the submission of a bid does not involve Canara Robeco in any liability for any cost incurred by us in preparing this technical bid. We further understand that commercial bid may be sent by Canara Robeco if the technical bid is assessed by Canara Robeco's bid review process and found to have merits and approved by Canara Robeco.

We further understand Canara Robeco's intention is that technical bids will be finalized during technical evaluation, and that all queries, clarifications and exceptions will be resolved and will not be reopened following the commencement of commercial bid.

\_\_\_\_\_  
Signature and Seal of the Bidder

II. BIDDER DETAILS:

<b>S.No.</b>	<b>Particulars</b>	<b>Details</b>
1.	Name of the Bidder	
2.	Constitution of the Bidder	
3.	Date of Incorporation and/or commencement of business	
4.	Certification of Incorporation ( <i>to be attached</i> )	
5.	Complete postal address/ contact details of the bidder	
6.	Brief description of the bidder including details of its main line of business	
7.	Particular of the authorised signatory of the bidder (attach the requisite Board Resolution/authority letter)	
8.	Name and Designation of the authorised signatory	
9.	Phone no./Mobile No. of the authorised signatory	
10.	Email address of the authorised signatory	

\_\_\_\_\_  
Signature and Seal of the Bidder

### III. DETAILS OF TECHNICAL BID:

Technical approach, methodology and work plan are the key components of the Technical Bid. You are suggested to present your technical bid in the below format:

Technical Specifications of Unified Storage System				
Sr. No.	Component	Requirement	Complied – Yes/No	Deviations if any
	Model and Make	Unified Storage		
1	Storage Architecture	The offered Unified Array should support Canara Robeco requirements of hosting critical applications with minimum <b>5000 Host IOPS</b> for all kinds of workload with latency of less than 3 ms. The IOPS mentioned are frontend IOPS to be seen by applications. The array should support FC and iSCSI protocol for external connectivity. Proposed SAN solution must have two numbers of controllers for better performance and redundancy. Appropriate disk IOPS must be configured to get above mentioned front-end IOPS at 70:30 R/W ratios.		
2	Storage Capacity	The Total Usable capacity should be of <b>17 TB post RAID</b> (preference is to have Dual Disk Parity, viz., RAID 6 kind protection) The array should be scalable to a minimum of 100 Drives or 500 TB behind the same controller pair by adding appropriate number of spindles and disk shelves. The storage should be configured for Auto Tiering license.		
3	Spindle Flexibility	Storage array should support SAS drives of 600 GB, 900 GB and 1.2 TB. SSD Drives of 400 GB, 800 GB and 1.6 TB. NL-SAS drives of 2TB, 3TB and 4TB & 6 TB.		
4	Array Architecture	Array Architecture: The array should be equipped with 2 Nos. of storage controllers for better performance and redundancy. Each controller should have minimum 2 FC Host ports each at 16 Gbps and should have provision for 2 iSCSI port at 10 Gbps BASE T Copper for future requirements. The controller should support co- existence of iSCSI and FC.		
5	LUN Scalability	The array should allow scalability to a 1024 pair.		

6	Cache & Cache Protection	Storage Array should be offered with a Minimum cache of 42 GB or more. Cache should be mirrored between Active-Active controllers on separate Inter controller paths. Must support either Cache battery backup or fully automatic de-stage of cache to disks during power failure to prevent possible data loss. The cache must be adaptive and should dynamically change with incoming workload. The storage should not restrict the write cache to value less than 30% of total cache available on SAN controllers.		
7	No Single Point of Failure architecture	Storage Array should have No Single Point of Failures (NSPoF), providing high availability at component functional level.		
8	O/S support	Industry-leading Operating System platforms including: Windows Server 2008, Windows Server 2012, Windows 2016, Sun Solaris (Version 10 and onwards), Linux. The array system should support Virtualized environment for VMWare 6.5 and Microsoft Hyper-V		
9	Global Hot Sparing	System should have capability to designate global hot spares that can automatically be used to replace a failed drive anywhere in the system.		
10	Thin provisioning and De-duplication	The storage array must provide thin provisioning for space efficiency as well as reclamation and also, should have an efficient De-Duplication capability for both Block and File data.		
11	RAID Support	Must support RAID levels 0,1,10,5 & 6 or provide capability for single disk failure, dual disk failure and mirroring. Must support inter-mixing different RAID groups within storage system. Different type of RAID levels should co-exist within the same array simultaneously to match the different protection requirements of data.		
12	Online LUN Migration for flexibility of redeployment.	The array should support online LUN migration (transparent movement of volumes functionality should allow cross RAID migration		
13	Striping capability	The array must support subsystem based striping. <b>Example.</b> If storage has 10 Drives wiyj 1000 IOPS and 400 MB through and in Future if we add more 10 drive in same Pool group then All Luns from that pool should now get 2000 IOPS and 800 MB throughput		
14	Real Time & Historical Performance Monitoring Cloud Base	Proposed array should support real time performance IOPS, Throughput etc. Using Cloud base Monitoring and AI Interface which will do correlation of performance. If Any Vendor Providing Analytic In house tool then that vendor need to Provide additional Hardware for the same ( Canara Robeco IT will not provide any Compute or storage for the same )		

15	Array Management	Easy to use GUI based and web enabled administration interface for configuration, storage management. Storage Management software must include both GUI and CLI tools. It must be able to centrally manage the vendor's complete range of arrays over the network. It must support web-based management. To protect privacy, transmitted between the browser and array must be encrypted using SSL. It must support event auditing for security. The date, time, and nature of the action must also be logged. It should have the ability to monitor the status, performance and configuration with utilization. It should have the ability to collect, store and analyze storage performance data.		
16	Non-Disruptive Upgrade	The storage array should allow firmware up-gradation for functionality improvement and enhancements. Must support non- disruptive upgrade of core software. Must support upgrade of existing storage controllers to a future generation controller.		
17	Array-based LUN Masking	Must support array-based hardware LUN masking for highest security. Storage must support LUN masking for different hosts and clusters.		
18	Protocols	Proposed array should support well-known protocols like FC and iSCSI.		
19	Array based copies (Please quote relevant licenses)	The array should support controller-based functionality for pointer based snap copies as well as full physical copies (mirror copies). The pointer based snap copies should require minimal space for creation of snapshot. The snap copy feature should be using efficient approach with minimal or nil overhead on the storage controller (vendor to submit a document in this regard). The snap copy should be array-based copy-on first-write snapshot capability. The snapshot must be a readable and writable LUN that can be mounted by a separate host for back up and /or testing. The full physical copy may require a target LUN of same size as parent. The full copy should support incremental updates (delta resync). The full copy must be an independently usable LUN that allows parallel processing without impacting the performance of the production LUN		
20	Disaster recovery (please quote relevant licenses)	Storage array should provide hardware-based data replication at the array controller level in both Sync (optional) and Async mode. It should support incremental replication after resumption link failure or fallback situations		
21	Storage System Capabilities	The Storage system should support automatic detection of errors, error logging and notification. It should support pro-active maintenance – self monitoring, and self-diagnosing features.		

22	Data-in-place-upgrade	Must support data-in-place upgrade of existing storage controllers to a future generation controller.		
23	Storage Monitoring and Analytics Tool	Unified Storage must Bundle with Storage Monitoring and Analytic tool so that Canara Robeco IT team will able to see the Current performance of the system from those tools show LUN performance, IOPS , Latency		
24	Licenses	All the licenses like snapshots, replication, compression, cloning, monitoring should be provided for maximum capacity of the array so that Canara Robeco does not have to buy additional licenses during upgrade.		
25	Support	Vendor should offer min 99.999 % uptime guarantee with 4 hrs response and defective part delivery		
26	Warranty and Response Time	3 Years OEM Warranty with 24 x 7 along with 6 Hrs CTR		

10 October 2018

**ANNEXURE C**  
**CUSTOMER REFERENCE**

*(Top 3 assignments of the Bidder shall be submitted separately in the below format)*

Sl. No.	Questions	Answers
<b>Reference Company Details</b>		
1	Company Name	
2	Company Address	
3	Telephone Number	
4	Fax Number	
5	Contact Name	
6	Title	
7	What is or was the contact's role on the implementation?	
8	Date of implementation (mm/yyyy)	
9	State the duration of the implementation	
<b>Storage Solution Details</b>		
10	Details of the project	
11	The year & date of the project commissioning.	

-----End of RFP Document-----