

e - TENDER DOCUMENT

FOR

**High Speed Backbone OFC Networking at  
Kariavattom Campus, University of Kerala**

(TENDER NO: P1.A1/4242/KUCC/OFC/16 )

09/05/2017

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## **PART A: Notice Inviting Tender**

### **1.0 Tender Notice:**

Online bids under Two- bid System are invited on behalf of Registrar, University of Kerala for award of contract pertaining to creation of 10G High speed backbone OFC Network facility (802.3ae) at Kariavattom campus, University of Kerala. The scope of work includes supply, installation, integration, testing and commissioning of Active and Passive components for Networking as per attached technical specification and Bill of Quantity (BoQ).

Tender No.	:	Pl.A1/4242/KUCC/OFC/16
Name of Work	:	10G High speed OFC backbone Networking at Kariavattom campus, University of Kerala (802.3ae)
Location of supply/work	:	Kariavattom campus, University of Kerala
Sale of Tender documents	:	From 10/05/2017 to 29/05/2017 Tender documents can be obtained from e- procurement website <a href="https://etenders.kerala.gov.in">https://etenders.kerala.gov.in</a>
Tender Submission Fee	:	2625 /- (Two thousand six hundred and twenty fiveonly) (including VAT)
Earnest Money Deposit	:	50,000/- (Fifty thousand Rupees)
Notification of amendments	:	<b>Corrigendum/amendmentsetc., if any, will benotified only on thee-tender web site and noseperate advertisement will bereleased for thesame.</b> Prospective biddersare thereforeadvised to regularly visit the e-tender web site portal for any such updates.

Submission of Bids : Under the Two bid system the Technical bid and Financial bid are required to be uploaded separately on the Portal.

Website for  
Online bid

Submission : <https://etenders.kerala.gov.in>

Last date and  
time for online  
submission of

bids : 29/05/2017 5 PM ( BID DUE DATE)

Date and time of  
opening of  
tender : 02/06/2017 11 AM (Technical Bid Only)

Period for  
completion of  
work : 6 months from the date of release of Work Order.

**KINDLY NOTE THAT ONLY ONLINE BID WILL BE CONSIDERED AGAINST THIS TENDER. Further, requests for postponement will not be entertained.** Bids sent by post/Fax/email without applying online bids shall be rejected straightway. **Registrar, University of Kerala** reserves the right to accept/ reject any or all tenders either in part or in full without assigning any reasons thereof.

Registrar  
University of Kerala

**Note: In case of any clarification in with regard to submission of bids please contact Shri Dr.Vinod Chandra S S ( Tel : 0471 2305801).**

## **PART B: Schedule of Requirements**

### **Objective**

Computer networking at Kariavattom campus was done several years ago. At that time the quantity of data flowing through the network was very low compared to this time. Many breakages happened to the fiber cable and this is affecting the data transmission through the network. The increasing demand for high performance network has challenged to design network architectures capable of delivering high quality of service to end users. High-availability of the network has always been important in the internetworking of campuses. Data transmission volume is increasing day to day. As part of e-governance, the University activities are going to be computerized. By considering the security of the campuses CCTV was installed at both the campuses (Palayam &Kariavattom). CCTV recording is another important needed factor. At Kariavattom campus many departments are conducting classes, video chats, internet services, e-learning etc. For the smooth functioning of these activities a high speed fiber backbone is essential. Understanding the need and importance of Internet in the field of education with High Speed Internet Connectivity and has strong backbone of dedicated OFC link throughout the campus, so that the students can surf the Web, enhance their knowledge and use the e-information.

The old documents of the University are digitized. It is necessary to keep the entire important document safely in one or more location. The implementation of Disaster Recovery planning is necessary at Kariavattom.

### ***Detailed BoQ for Kariavattom Campus Optical Fiber Backbone and Disaster Recovery Centre of University of Kerala***

The optical fibre backbone and disaster recovery Centre is surveyed. The detailed BoQ is as follows:

1. **BoQ**

<b>Optical Fiber Backbone</b>			
<b>A</b>	<b>Passive Components</b>		
<b>Sl. No.</b>	<b>Description</b>	<b>Unit</b>	<b>Qty.</b>
<b>OPTO ELECTRONICS</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	145
b	12 Port Fully loaded LIU. With loaded pigtailed and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1
<b>FUTURE STUDIES/AQUATIC</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	247
b	12 Port Fully loaded LIU. With loaded pigtailed and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1
<b>CCF</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	521
<b>If the Building does not exist go with option c otherwise option b</b>			
b	24 Port Fully loaded LIU. With loaded pigtailed and couplers	Nos.	1
c	Direct Splicing Bamboo Closure capable of 24C splice, with buried sand chamber accommodating closure	Nos.	1
<b>LI BRARY</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	230
b	12 Port Fully loaded LIU. With loaded pigtailed and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1

d	Wall mount enclosure of dimension 600 x 12U x 500D, with front sheet steel glass door, top and bottom cover with cable entry provision openable side wall, 1 pair of 19 angle with wall mounting provision, fan 2 Nos, powerstrip 6 x 5A universal socket, 2M long power cord and captive hardware pack of 20.	Mtrs.	1
<b>New Auditorium</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	650
b	12 Port Fully loaded LIU. With loaded pigtails and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1
d	Wall mount enclosure of dimension 600 x 12U x 500D, with front sheet steel glass door, top and bottom cover with cable entry provision openable side wall, 1 pair of 19 angle with wall mounting provision, fan 2 Nos, powerstrip 6 x 5A universal socket, 2M long power cord and captive hardware pack of 20.	Mtrs.	1
<b>ENVIRONMENTAL SCIENCE</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	501
b	12 Port Fully loaded LIU. With loaded pigtails and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1
<b>SCHOOL SYSTEM</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	451
b	12 Port Fully loaded LIU. With loaded pigtails and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1
d	Wall mount enclosure of dimension 600 x 15U x 500D, with front sheet steel glass door, top and bottom cover with cable entry provision openable side wall, 1 pair of 19 angle with wall mounting provision, fan 2 Nos, powerstrip 6 x 5A universal socket, 2M long power cord and captive hardware pack of 20.	Mtrs.	1

<b>POLITICAL SCIENCE</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	279
b	36 Port Fully loaded LIU. With loaded pigtails and couplers (1*24port+1*12port)	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	3
d	Wall mount enclosure of dimension 600 x 15U x 500D, with front sheet steel glass door, top and bottom cover with cable entry provision openable side wall, 1 pair of 19 angle with wall mounting provision, fan 2 Nos, powerstrip 6 x 5A universal socket, 2M long power cord and captive hardware pack of 20.	Mtrs.	1
<b>ORI</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	207
b	12 Port Fully loaded LIU. With loaded pigtails and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1
<b>ISLAMIC STUDIES</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	253
b	12 Port Fully loaded LIU. With loaded pigtails and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1
<b>ARABIC</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	122
b	24 Port Fully loaded LIU. With loaded pigtails and couplers	Nos.	1
c	LC-LC/SC-LC Patch cord, 3Mtrs. Single mode	Nos.	2
<b>MALAYALAM</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	639



b	36 Port Fully loaded LIU. With loaded pigtailed and couplers (1*24port+1*12port)	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	3
d	Wall mount enclosure of dimension 600 x 15U x 500D, with front sheet steel glass door, top and bottom cover with cable entry provision openable side side wall, 1 pair of 19 angle with wall mounting provision, fan 2 Nos, powerstrip 6 x 5A universal socket, 2M long power cord and captive hardware pack of 20.	Mtrs.	1
<b>TAMIL</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	90
b	12 Port Fully loaded LIU. With loaded pigtailed and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1
<b>PERFORMING ARTS</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	249
b	12 Port Fully loaded LIU. With loaded pigtailed and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1
d	Wall mount enclosure of dimension 600 x 12U x 500D, with front sheet steel glass door, top and bottom cover with cable entry provision openable side side wall, 1 pair of 19 angle with wall mounting provision, fan 2 Nos, powerstrip 6 x 5A universal socket, 2M long power cord and captive hardware pack of 20.	Mtrs.	1
<b>COMPUTER SCIENCE</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	380
b	36 Port Fully loaded LIU. With loaded pigtailed and couplers (1*24port+1*12port)	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	3

d	Wall mount enclosure of dimension 600 x 15U x 500D, with front sheet steel glass door, top and bottom cover with cable entry provision openable side side wall, 1 pair of 19 angle with wall mounting provision, fan 2 Nos, powerstrip 6 x 5A universal socket, 2M long power cord and captive hardware pack of 20.	Mtrs.	1
<b>BIOTECHNOLOGY</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	145
b	12 Port Fully loaded LIU. With loaded pigtails and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1
<b>IMK</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	225
b	12 Port Fully loaded LIU. With loaded pigtails and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1
d	Wall mount enclosure of dimension 600 x 12U x 500D, with front sheet steel glass door, top and bottom cover with cable entry provision openable side side wall, 1 pair of 19 angle with wall mounting provision, fan 2 Nos, powerstrip 6 x 5A universal socket, 2M long power cord and captive hardware pack of 20.	Mtrs.	1
<b>USIC</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	584
b	12 Port Fully loaded LIU. With loaded pigtails and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1
<b>JUBILEE</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	650
b	12 Port Fully loaded LIU. With loaded pigtails and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1

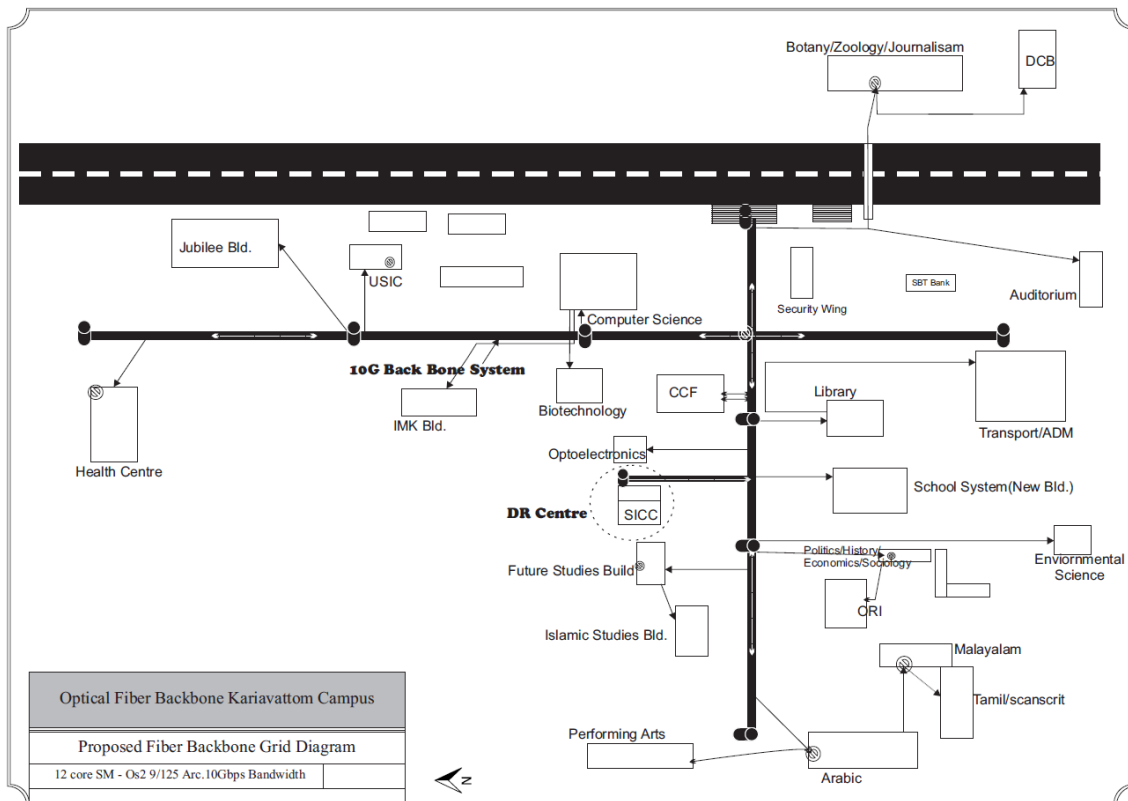
d	Wall mount enclosure of dimension 600 x 15U x 500D, with front sheet steel glass door, top and bottom cover with cable entry provision openable side wall, 1 pair of 19 angle with wall mounting provision, fan 2 Nos, powerstrip 6 x 5A universal socket, 2M long power cord and captive hardware pack of 20.	Mtrs.	1
<b>HINDI</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	75
b	12 Port Fully loaded LIU. With loaded pigtails and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1
<b>HEALTH</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	875
b	12 Port Fully loaded LIU. With loaded pigtails and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1
<b>BOTANY</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	650
b	24 Port Fully loaded LIU. With loaded pigtails and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	2
d	Wall mount enclosure of dimension 600 x 15U x 500D, with front sheet steel glass door, top and bottom cover with cable entry provision openable side wall, 1 pair of 19 angle with wall mounting provision, fan 2 Nos, powerstrip 6 x 5A universal socket, 2M long power cord and captive hardware pack of 20.	Mtrs.	1
<b>DCB</b>			
a	12-core,10Gbe Capable Single Mode, Loose-tube, Gel filled, Single Mode, 9 / 125, 250 micron primary coated buffers, Corrugated Steel Tape Armoured OF-SM-OS2 cable	Mtrs.	250
b	12 Port Fully loaded LIU. With loaded pigtails and couplers	Nos.	1
c	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	1

<b>SERVER ROOM</b>			
a	144F, LC SM OS2,4U High density Fiber Patch Panel Enclosure Fully Loaded with Pigtails and Couplers, splice tray, adapter & splice protectors	Nos.	2
b	Netrack Network Rack, NRS 800 Series 42U 800X1000 rack Black in colour	Nos.	1
c	Cable Manager Closed Type	Nos.	15
d	LC-LC Patch cord, 3Mtrs. Single mode	Nos.	45
<b>GENERAL WORKS</b>			
a	40/33 MM PLBE HDPE OFC Duct Two Layer with Accessories	Mtrs.	8200
b	5" ISI Marked GI Pipe-Class B - Medium (Blue)	Mtrs.	100
c	Cast Iron Cable route Marker with iron leg 80cm. With Visible Painting	Nos.	200
d	2" ISI Marked GI Pipe-Class B - Medium (Blue)	Mtrs.	50
<b>B Active Components</b>			
a	HP-1920 24 Port switch with 4 SFP Port	Nos.	9
b	HP 5130 EI 24G Ethernet Switch + 4 Sfp (support 10GbE and 1GbE)	Nos.	3
c	HP-1G SFP Transceiver	Nos.	20
d	HP-10G Transceiver	Nos.	10
e	HP-Core Switch (2*24 port fiber module-1Gbe,2*24 ethernet module, 1*16 fiber module-10G)	Nos.	1
f	HP-10G Transceiver for Core Switch	Nos.	10
g	HP-1G Transceiver for Core Switch	Nos.	48
<b>C Labour / Installation Charges</b>			
a	12 core OFC Cable Laying charges.	Mtrs.	8418
b	40/33 MM PLBE HDPE OFC Duct laying charges.	Mtrs	8200
c	Fixing G.I Pipe	Mtrs.	150
d	OFC splicing & Fluke Two Direction Testing charges.	Nos.	414
e	Fixing of Cable Route Marker,With Concreate	Nos.	200
f	Fixing of rack 12U/15U	Nos.	10

g	Trenching of hard/soft soil upto a depth of 100 Cms. Covering the conduit with bricks and refilling.with all safety measurements as per the direction of University	Mtrs.	8000
h	Road Cutting and Concrete Plastering	Mtrs.	190
i	Cable Chamber With SecurityLock,Water Proof and Sealed,Provision for Cable Entry and Exit(Ring type-1.5m depth&1.5m diameter)	Nos.	1
j	Concrete Manhole with 80 cm width, 1.2m length&1.2m depth)	Nos.	10
k	Cable Runway Outdoor use: 18 " Width, from Cable Chamber to server room,Material: Steel,Anti- corrosion Paint	Lsm	1
l	Shifting of servers, firewall, wireless controller etc from old server room to new Server room, including transportation and all other charges.	Lsm	1
m	Installation of High Density Fiber Patch Pannel Enclosure, 42U Rack, Labeling of each Cable and Patch Codes and neat dressing and patching of 42u Rack	Lsm	1
n	Migration of old 9U Rack to New15U Rack, in the same area including all coper and Fiber Connections	Nos.	6
o	Switch Fixing (HP1920 & HP 5130)	Nos.	12
p	Core Switch Installation and Configuration	Nos.	1
q	Buriying of Closure sand ring chamber accomodating closure	Lsm	1
r	LIU Fixing, Labeling and OFC Dressing	Nos.	22
<b>Disaster Recovery Centre</b>			
a	Fire safety systems	Lsm	1
b	Biometric Door Access to the Server Room	Lsm	1
c	Rodent Repellent System	Lsm	1
<b>Additional</b>			
a	Integrated KVM Switch Scrn+KBD+TP integrated 8 port/USB/VGA	Nos.	5
b	Server Room Monitor trolley	Nos.	2
c	High End Server - 4 Processor 18c/512GB/4U	Nos.	1
d	UPS 10 KVA with one hour backup- SMF Battery with Stand	Nos.	3
e	Upgradation of Existing Hitachi SAN storage (HUS130) to 20 TB usable	Lsm	1

	<b>Harddisk Specification</b> HUS 3TB SAS 7.2K RPM HDD LFF for CBSL/DBL-Upg		
f	Additional Items (if any)	Lsm	1

## 2. Proposed Fiber Backbone Grid Diagram



## **PART C: Specification**

Specifications of passive and active components are specified in Annexure II

#### **PART D: Bidder/ OEM Eligibility criteria**

1. Bidder should have experience in successfully implementing the supply, installation and commissioning of High speed OFC backbone networking. (Bidder to submit copy of PO/Completion Certificate from the Client).
2. The Bidder should be OEM or Authorized Dealer/Distributor/System Integrator of the OEM of the offered product (Bidder to submit documentary proof).
3. The average financial turnover during the last three consecutive financial years should be at least Rs. 100/-lacs per year.
5. The Bidder should have their office /support centre in Kerala, details of the same should be enclosed. If the Bidder doesn't have a service facility in Kerala, necessary proof for the understanding with vendor to provide service support to University for this project to be enclosed.
6. The OEM / Bidder should have a clean Track record, i.e. The OEM/ Bidder / its sister concern/ any group company should not have been black listed by any Govt. or Quasi- Govt./ Govt. Undertaking companies in India at any point of time. (Declaration in this regard to be submitted along with Technical bid).
7. Bidder should be single party; consortium will not be accepted.
8. The Bidder is required to quote for the complete BoQ. Partial quote is liable to be rejected.



## **PART E: Instruction to Bidders**

### **1.0 Special Instructions:**

1. The Bidder is required to upload a copy of this tenderdocument, with all pages signed by the authorized person, to confirm that Bidder has read and understood the conditions of this tender document and that the proposal is submitted in full understanding and agreement of the requirements of University.
2. The Bidder should visit the site with prior appointment and carry out necessary inspection and test/measurement as are necessary before submitting its bids. All costs associated with such site visit and in preparation and submission of the Bid will have to be bear by the bidder. University will in no case be responsible for such costs, regardless of the conduct or outcome of the bidding process.
3. University reserves itsrights to amend any of the terms and conditions of this tender document. Such amendment shall be published on e-tender website only and will not be published in newspapers.
4. The complete bid shall be without alteration or erasures, except those to accord with instructions issued by the University or as necessary to correct errors made by the bidder, in which case such corrections shall be initialed by the person or persons signing the bid.
5. The bidder shall submit only one option, which is best suitable to meet University requirements. The bids submitted with more options shall be liable to be rejected.
6. The Bid prepared by the Bidder, as well as all correspondence and documents relating to the Bid exchanged by the Bidder and University, shall be in English only.
7. The bidder shall base his solution on the basis of continuous availability of spares for at least 3 years, after the specified warranty period.
8. Wherever a specific form is prescribed in the Bid document, the Bidder shall use the form to provide relevant information. If the form does not provide space for any required information, space at the end of the form or additional sheets shall be used to convey the said information. For all other cases, the Bidder shall design a form to hold the required information.
9. Successful bidder shall perform all the obligations specified in accordance with the terms and conditions laid down in the RFP. All details provided by the Bidder should be specific to the requirements specified in this RFP.

Detailed clarification may be provided by Bidder, if so desired by University. The Bidder shall specify the responsibilities of University, if any, separately for the successful implementation of the project.

10. The format of technical bid (including organizational capability) and financial bid are given in 'Part-H' and 'Part-I' respectively. Bidder should ensure that all documents are uploaded with the Technical bid and Financial bid as per the checklist given in 'Part-J'.
11. All related active and passive components shall be from the specified OEM. If the specified model is not available quotation may be submitted with better model. Networking at Kariavattom campus is done by using HP switches.
12. Detailed Fiber Backbone Grid Diagram/ Solution document of the offered system should be attached in the technical bid.
13. The Bidder shall provide the detailed data sheets (technical specifications (Datasheets), dimensions, brochures, make, model, photo catalogues, and conformance to standards) mentioned about the quoted components and system along with the bid.
14. Any additional item required shall be included in the item "Additional Items (if any)" and details shall be attached along with the hard copy.

## **2.0 General Instructions:**

1. Tender should be uploaded on or before the bid due date stated in the Notice Inviting Tender (NIT). Tenders received after the bid due date will not be considered.
2. Tender should clearly specify delivery schedule.
3. Any taxes or statutory levies payable should be shown separately; otherwise quoted price will be treated as all inclusive.
4. Any deviation from University's specification of items shall be clearly indicated in quotation itself.
5. The validity of quotation should be for a minimum of 90 days from the bid due date.
6. The bidder should be existing and in operation in India for the last 5 years.

7. The Annual turnover of the bidder for the last 3 years may be submitted.
8. The bidder should submit the list of major works carried out (Govt./ semi Govt.), with client details such as name, contact address, email, phone etc.
9. Bidder should preferably have an office in Kerala.
10. Items offered should be as per requirements mentioned in the Technical specification.
11. The bidder may quote the items, which meets the requirements and specification. In such case, the items are to be supplied and installed at Kariavattom campus.
12. Delivery of material at site and installation including loading and unloading shall be the responsibility of supplier.
13. Bidders are advised to visit and familiarize themselves with the site conditions and concerned areas before submission of tender documents.
14. Bidder shall contact the tenderer for any clarification regarding the technical requirement.
15. The bidder should inform acceptance of Purchase Order within fifteen days of receiving the order.
16. University has its own power to cancel an item or items specified in the list of 'Additional' BoQ.

## **PART F: General and Special Tender Conditions**

### **1. Period of validity**

The tender shall remain valid for acceptance for a period of ninety days from the bid due date.

### **2. Bidding Format**

- a. The bidder should submit its bid in the Technical and Financial bid format as provided in Part 'H' and Part 'I' of this tender document. All the enclosures are required to be attached with the bids as per the sequence mentioned therein.
- b. Split-up part numbers of each item of the BoQ is to be shown in the financial bid with line item cost.
- c. Being a research organization, University is entitled for Customs & Excise duty exemption, as mentioned under clause 8.0 below. Hence, bidders are requested to take note of the same while submitting their bids.

### **3. Award of Contract**

The contract will be awarded to the bidder whose bid has been determined to be eligible and to be substantially responsive to the bid documents and who has offered the lowest evaluated bid.

### **4. Performance Security**

- a. Within 15 days of receipt of the Work Order from the University, the successful Bidder shall furnish to University a Security in the form of a Bank Guarantee from Nationalised/Scheduled bank for an amount of 5 percent of the Contract sum.
- b. The validity of the Performance Security as per the Notification of Award for work shall be upto the end of the Warranty period with 3 months claim period after expiry of warranty period.
- c. Failure of the successful Bidder to lodge the required Bank Guarantee shall constitute sufficient grounds for the annulment of the Award and forfeiture of the Bid Security, in which event the University may make the Award to the next lowest evaluated Bidder or, if there are no other Bidders, call for new Bids.

### **5. Supply and Installation Terms**

- a. The Bidder shall provide the detailed data sheets (technical specifications (Datasheets), dimensions, brochures, make, model, photo catalogues, and conformance to standards) mentioned about the quoted components and system along with the bid.

- b. The required delivery schedule must be mentioned against each item.
- c. The successful bidder should supply items as per the quantity listed in the BoQs.
- d. Supply & Installation location is at Kariavattom.

**6. Project Duration**

- a. The entire work including Supply, Installation, Integration, Testing and Commissioning should be completed within six months of releasing the work order.
- b. The entire documentation and testing reports should be submitted within the project duration of six months.
- c. Training to the identified group of administrators in University also to be provided within the project duration of six months.
- d. Final acceptance certificate will be issued by University only after completing point a, b & c mentioned above.

**7. Final Acceptance Certificate**

- a. On successful completion of the work as per the 'Scope of work' specified under Part 'G' of this tender document, the contractor shall submit its application to University for issue of 'Final Acceptance Certificate' for the work carried under this contract.
- b. The complete work shall be subject to inspection by the technical committee consisting of expert members. The performance of the system as a whole will be tested to comply with the acceptable standards and norms as per the 'Scope of work'.
- c. On successful testing of the system the bidders will be issued the 'Final Acceptance Certificate'. In case any deficiencies are noticed during the inspection, the bidder will be liable to make good the deficiency failing which the 'Final Acceptance Certificate' will not be issued.
- d. The bidder will be entitled to submit its bill for payment only when 'Final Acceptance Certificate' is issued by University.

**8. Taxes, Duties and other charges**

Sales Tax: Full CST/VAT applicable.

**9. Liquidated Damages for Delay**

If the Contractor fails to complete the execution of works or any section by the time for completion, within the relevant time, then the Contractor shall pay to University liquidated damages at the rate of the 0.5 % of contract value for per week of delay or part thereof subject to maximum of

5% of the contract value. The Employer may, without prejudice to any other method of recovery, deduct the amount of such damages from any monies due or to become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor from his obligation to complete the Works, or from any other of his obligations and liabilities under the contract.

#### **10. Warranty Clause**

- a. All devices as per BoQ should have comprehensive onsite warranty for **three years** from the date of commissioning of the network.
- b. During the first year of warranty, the bidder will have depute atleast one qualified network engineer at site for configuration of network devices, troubleshooting and service support. The engineer so deputed will have to remain necessarily at site during the working hours of University and will be responsible for smooth functioning of the network.
- c. All ongoing software upgrades for all major and minor releases should be provided during the warranty period.
- d. Bidder should ensure that there is a back-to-back agreement with OEM to meet above hardware and software warranty terms.
- e. Bidder should ensure service & spare support for at least 3 years, after the specified warranty period on separate commercial terms.

#### **11. Price Variation Clause**

The rates quoted by the bidder shall be firm throughout the contract period and there shall be no upward revision of the rates quoted by the bidder for any reason what so ever.

#### **12. Extra Item**

Any unforeseen item of work/supply / extra item of work as being authorised by the Centre and not included in the contract, shall be done by the Contractor at mutually agreed rates. Written prior approval of University should be obtained before undertaking any extra work. Payment of such items shall be made at actual supported by necessary documentary evidence duly approved.

#### **13. Termination**

Notwithstanding anything elsewhere provided herein and in addition to any other right or remedy available to University under the contract or otherwise including right of University to claim compensation for delay, the University may, without prejudice to his right against Contractor in respect of any delay, bad workmanship or otherwise or to any

**14. Force majeure**

The right of the contractor to proceed with the work shall not be terminated because of any delay in the completion of the work due to unforeseeable causes beyond the control and without the fault or negligence of the contractor, including but not limited to acts of god, or of the public enemy, restraints of a sovereign state, floods, unusual severe weather conditions.

**15. Arbitration**

Any claim, dispute or difference arising out of or in connection with this agreement and which cannot be settled by mutual consultations, shall be referred to sole Arbitration or an Arbitrator to be appointed by mutual consultations. The award of the Arbitrator shall be final and binding between the parties as per the terms and conditions of the Agreement to be executed on award of contract.

**16. Jurisdiction of Dispute**

All dispute under this contract shall be subject to the jurisdiction of court situated in Thiruvananthapuram.

## **PART G: Scope of Work (SoW)**

### **1. Scope of Supply**

- Supply of all Active and Passive components as per BoQ at University.

### **2. Scope of Installation, Configuration and Integration**

- Physical installation and powering of all Active and Passive components as per Fiber Backbone Grid Diagram provided by University
- Proper marking of cable, Safety Sign board/Route marker to be installed for cable laid underground and other miscellaneous work.
- Any structure, permanent or temporary, dismantled or destroyed during the execution of the work shall be refilled/remake or restore to its original condition by the contractor at his own cost.
- Any extra electrical points and data points required in the server room shall be provided by the contractor at his own cost.
- Configuration and Integration of all of Active and Passive components as per the approved implementation plan.

### **3 Scope of Acceptance testing and commissioning**

- After installation and configuration of each and every subsystem, integrating various systems and providing various services, tests shall be conducted for system performance as a whole.
- Commissioning shall mean end-to-end commissioning of the network with testing of live applications. Test parameters, commitments etc. shall be submitted along with implementation plan, which is shall be approved by University.



- In the event, the test parameters, commitments are not submitted or not accepted explicitly in writing/minutes by University, the Test parameters, commitments etc. as decided by University will be final and binding.
- Upon Self testing and Commissioning, the system shall be offered for inspection by University.
- The successful Bidder, along with University shall prepare an inspection and acceptance schedule with details of each activity.

#### **4. Scope of Documentation**

- Providing original manuals and softwares of all hardware items supplied.
- Implementation plan, to be approved by University before initializing the installation and configuration activity.
- Test parameters, commitments etc. for acceptance testing to be enclosed along with Implementation plan.
- Fiber Backbone Grid Diagram must include distance from key points such as building corner, road etc.
- OTDR Report
- Technical write up of the network design and functioning, System and Fiber Backbone diagram, Active and Passive components configuration details, Security implementation.
- Acceptance test reports, performance test reports of networking components.
- Any other Relevant Documentation

#### **5. Scope of Training**

- The participants for the training shall be University administrators.
- Course material for the above (one copy each per participant) to be provided.

## **PART- H: Format of Technical bid including Organizational capability**

### ATTACHMENT #1

#### General Information of the BIDDER

- 1 Name of BIDDER
- 2 Address
- 3 Telephone Number
- 4 Fax Number
- 5 Email
- 6 Web Site
- 7 Legal status
  - Government/ Public Sector Undertaking
  - Partnership firm (if yes, give partnership deed)
  - Limited company or limited corporation
  - Member of a group of companies (if yes, give name and address, and description of other companies)
  - Subsidiary of a large corporation (if yes give the name and address of the parent organization) If the company is subsidiary, state what involvement if any, will the parent company have in the project.
- 8 Is the firm a registered company? If yes, submit documentary proof. Date of Establishment
- 9 Correspondence Address

*Name:*

*Address:*

*Email:*

*Phone:*

*Fax:*

- 10 Is the firm registered with sales tax department? If yes, submit valid sales tax registration certificate.
- 11 Income Tax Department (Service Tax Cell)? If yes, submit valid service tax registration certificate.
- 12 Is the firm registered under Labour Laws Contract Act?

If yes, submit valid registration certificate.

13 Number of years of experience in the relevant field ?

Submit documentary evidence.

15 Number of Offices / Project Locations

16. Do you have an office/support centre in Kerala? If so, please give the address and the details of staff, infrastructure etc in the office and no. of years of operation of the local office. If the Bidder doesn't have a service facility in Kerala, necessary proof for the understanding with vendor having service centres in Kerala to provide service support to University for this project to be enclosed.

17. List the major clients with whom your organization has

18. Whether the OEM is ISO 9001:2008 and ISO 14001:2004

Certified. Documentary proof to be have bidder/OEM/its sister concern ever been blacklisted govt. or quasi govt./PSU in India during the last five years. Necessary by any declaration to be submitted along with the technical bid.

Signature of Bidder

Seal of Bidder

ATTACHMENT # 2

Letter of authorization from the OEMs that the bidder is representing them, and that the bidder's commitment shall be met in Toto by them.



#### ATTACHMENT #4

Detailed Technical Proposal meeting the bid requirements covering detailed specifications should include

- I. Detailed description of Technical specifications (Datasheets)
- II. Make, model and part no. of items and sub-items quoted.
- III. Detailed data sheet with specifications for the offered items with model & part nos. highlighted.
- IV. Relevant test certificates/performance certificate/End-user acceptance certificate of the offered components/ systems

ATTACHMENT # 5

Any proposed deliverable/ functional aspects/ technical aspects/ terms/ conditions or any other item NOT IN compliance to tender Requirement

Sl No	Section/ Page No. in tender	Sl.No. as in tender	Requirement as specified in tender	Deviation	Remarks/ Reasons /Alternatives

ATTACHMENT # 6

Detailed Project Schedule.

ATTACHMENT # 7

Financial Bid with value/price information masked. Make, model, quantity etc of each of the line item with sub-items indicated.

ATTACHMENT # 8

Facilities sought from University

ATTACHMENT # 9

The average financial turnover during the last three consecutive financial years should be attached.

ATTACHMENT # 10

Copy of the tender document, with all pages signed by the authorized person, should be attached.

ATTACHMENT # 11

Undertaking that service & spare support will be provided for atleast 3 years, after the specified warranty period.

ATTACHMENT # 12

Any other relevant matter.

**PART – I: FINANCIAL BID FORMAT**

<b><u>COST SUMMARY</u></b>		
Sl.No	COMPONENT	TOTAL AMOUNT
1	SUPPLY	
2	INSTALLATION, CONFIGURATION & INTEGRATION	
3	DOCUMENTATION & TRAINING	
	<b>GRAND TOTAL</b>	



**PART- J: ANNEXURES**

**ANNEXURE-I**

**CHECK LIST**

Sl. No	Description	Included( Y/N/NA)	Remarks
1	Technical bids should contain all information as in the Financial bid, except for the price information. The split-up part numbers of the line items should be present.		
2	Copy of PO/Completion Certificate from the Client for similar works as specified in Part 'D' to be uploaded along with technical bid.		
3	Certificate for proving that the Bidder is OEM or Authorized dealer /Distributor / System integrator to be uploaded along with technical bid.		
4	Document to prove experience of 5 years in Networking business to be uploaded along with technical bid		
5	Details of office/support centre in Kerala to be uploaded along with technical bid.		
6	Undertaking with vendor having office/support centres in Kerala to provide support to University, if Bidder doesn't have such facility in Kerala to be uploaded along with technical bid.		
7	Declaration that the Bidder has a clean track record to be uploaded along with technical bid.		
8	Document on Income tax assessment for last three Years to be uploaded along with technical bid		
9	Undertaking that service & spare support will be provided for at least 3 years, after the specified warranty period on separate commercial terms to be uploaded along with technical bid.		
10	All related active and passive components should be from specified OEM.		
11	Bidder should be single party, not consortium.		
12	Detailed Fiber Backbone Grid Diagram / Solution document of the offered system attached in the technical bid.		
13	Technical Bid (incl. Organisational capability) and Financial bid are to be uploaded separately.		
14	A copy of the tender document, with all pages signed by the authorized person is to be uploaded along with the technical bid.		
15	Complete BoQ is quoted.		
16	Financial bid should contain full price details including taxes.		