RFP No.: APSFL/CPE/14/13/2018, Dated 27/08/2018						
Empanelment of Vendors by APSFL for Procurement of Customer Premise Equipment (CPE)						
S.No	**RFP Part No.**	**Section No.**	**Page no.**	**Content in RFP**	**Clarification /Support Request**	**Response by APSFL**
1	1. Inviting Authority	Clause 1.1(7)	7	Last date and time for submission of proposal 12/10/2018 at 3:00 PM Date and time of opening of pre-qualification cum technical bids on e-procurement platform 12/10/2018 at 4:00 PM	Request for extension till 31-OCT-2018. The OEM from china where on holiday from 1-OCT-18 till 08-OCT-18 and so require more time.	Please refer corrigendum
2	4. Pre-Qualification Criteria	Clause 4.1	14	The Bidder/consortium members should be a Company registered in India under the Indian Companies Act 1956/2013 or a Registered Partnership Firm or a Sole Proprietary Firm or LLP. Foreign companies can be a consortium member provided they are manufacturer/OEM of the products being supplied and provided they partner with an Indian MSME, from whom they undertake to procure goods and services not less than 10 % of the order value.	Can the Lead bidder be a Foreign company who has consortium with a Indian MSME company or any company registered under companies Act in India.	Please refer corrigendum
3	4. Pre-Qualification Criteria	Clause 4.3	14	The Bidder/consortium should have cumulative Annual Turnover of INR 100 Crores and above in last three audited financial years. In case of Consortium the prime bidder should contribute at least 50% of the turnover.	Can the Lead bidder be a foreign OEM company who has got enough annual turnover?	No
4	4. Pre-Qualification Criteria	Clause 4.5	15	The Bidder/ Consortium should have valid GST registration in India	Incase of consortium and the lead bidder is a foreign company, they will not have a GST registration. Is it acceptable that the other consortium partner which is an Indian company submits their GST certificate.	No
5	5. Schedule of Requirement	Annexure-B	16		Is the bidder required to bid for all the items or any number of items chosen by the bidder. Is it acceptable if the bidder bids for one or more but all 4 items. In this case, what will be the bid security and bid processing fees.	Bid security is same for all the bidders.
6	1. Inviting Authority Bid Security / EMD (Refundable)	Clause 1.10	7	INR 1,50,00,000 (Rupees One Crore Fifty Lakhs only) in the form of Bank Guarantee issued by one of the Nationalized / Scheduled Commercial Banks in India drawn in favour of Andhra Pradesh State FiberNet Ltd, payable at Vijayawada.	If the bidder wants to bid for only select items in the schedule of requirement. Then is the EMD amount will be same or will be different.	EMD Will be same

7	Equipment (CPE) 20 | P a g e 7. Instructions to the Bidder	7.31 Payment Terms	27	1. First Milestone: The payment against each work order will be made after the delivery of the ordered items at the site. If the order could not be completed within the stipulated time as per the work order, then partial payment will not made by APSFL. After completion of full order, 30% of the total cost of ordered items will be paid by APSFL on behalf of the Purchaser in 30 days after the delivery of the items at the site, after deducting the LD if applicable. 2. Second Milestone: 30 % of the total cost of ordered items shall be paid after completion of QC testing of the delivered consignment or within 30 days after releasing the first milestone payment – whichever is earlier. 3. Third Milestone: Another 30% will be paid after 30 days of 2nd milestone payment. 4. Fourth Milestone: 10% will be retained during the first-year warranty period and this amount will be returned after completion of one-year warranty period, after deducting the any SLA penalty during the first-year operation Or the 10% payment will be released after submission of Bank Guarantee for the warranty period.	1. First Milestone: The payment against each work order will be made after the delivery of the ordered items at the site. If the order could not be completed within the stipulated time as per the work order, then partial payment will not made by APSFL. After completion of full order, 80% of the total cost of ordered items will be paid by APSFL on behalf of the Purchaser in 30 days after the delivery of the items at the site, after deducting the LD if applicable. 2. Second Milestone: 15 % of the total cost of ordered items shall be paid after completion of QC testing of the delivered consignment or within 30 days after releasing the first milestone payment – whichever is earlier. 3. Third Milestone: 5% will be retained during the first-year warranty period and this amount will be returned after completion of one-year warranty period, after deducting the any SLA penalty during the first-year operation Or the 5% payment will be released after submission of Bank Guarantee for the warranty period.	Please refer corrigendum
8	3. Scope of Work	Sample acceptance & testing	Corrigendum 2	New Clause: APSFL shall provide the box designs for all CPEs and adherence to these designs is mandatory to ensure uniformity.	We wish to inform you that based on the design only, CPEs cost will be estimated. Hence we request the department to provide the box designs immediately in order to work on the Costing	The design for all types of CPEs can be OEM choice but the technical specifications complaince should be as per RFP requirements. The final approval for asthetics of the box shall be provided by APSFL post completion of POC.
9	3	3	12	Sample Testing 128 returnable samples have to be submitted for testing, which will done in a lab and as well as on the field as per requirement. Two weeks' time will be given for submission of samples. In case of any failure/delay in submission of samples, APSFL reserves the right to cancel the LOI issued	Are 128 samples required for all the three boxes or only Combo Boxes? Kindly share the test cases for the Sample testing	Please refer corrigendum
10	7.31	7	27	Payment Terms: 2. Second Milestone: 30 % of the total cost of ordered 3. Third Milestone: Another 30% will be paid after 30 days of 2nd milestone payment. 4. Fourth Milestone: 10% will be retained during the first-year warranty period and this amount will be returned after completion of one-year warranty period, after deducting the any SLA penalty during the firstyear operation Or the 10% payment will be released after submission of Bank Guarantee for the warranty period.	Request to change this two milestones. Alternatively need to accommodate bank financing costs Request to change it to 5% as payment milestone of QC is included	Please refer corrigendum
				1. IPTV Box with Android TV OS		
				802.11abgn. 1T1R	802.11 n 2T2R supports 300mbps and comes at competitive.	No change, Clause stands as per Corrigendum
				RJ45, 10/100MBase-T or Gigabit Ethernet (support IPV4 & IPV6	1*RJ45 isenough and can save more cost. Kinldy confirm or do suggest if there is a use case for the same	No change, Clause stands as per Corrigendum

				Front Panel: Green LED, Orange LED, Blue LED (Bluetooth) Panel Rear Panel: Power Switch , DC Jack, RJ45, TRRS, TF,HDMI, Micro USB, 2*USB Type-A, Reset Key.	We assume it is Single LED with three colors or do you need three LEDs?	No change, Clause stands as per Corrigendum
				RCU	We recommend to add Netflix, Youtube specific buttons in RCU	No change, Clause stands as per Corrigendum
				The OS level access to hardware interface such as Bluetooth, IR should be provided.	Because of the selinux policy of android 8.0 and later. Google may not allow this as part of their certification. It is a risk. Need Google confirmation	No change. If this clause needs to be relaxed due to Google policy, bidder may provide a letter stating the same. APSFL may consider relaxing it .
				Build Tools and packages to develop and test custom made system applications along with a development version of the10 no's ATV boxes with source, and necessary tools to develop and test application shall be provided	According to the TADA agreement with google, We can not release ATV source. However we can release AOSP source code.	The clause is applicable for any customizations and system/application software done on top of standard ATV software.
11	8.1	8	39	Custom made SDK/library shall be made available with access and permission to achieve at least: i) Run default background service. ii) Will be able to give commands to system apps. iii) 3rd party can be started as standalone services. iv) Switch default hardware apps with custom app.	This can be provided only as AOSP source code. But should obey the android CDD to pass the ATV certification, Have risk	The clause is applicable for any customizations and system/application software done on top of standard ATV software.
			43	3.7) 802.1q VLAN processing: Q-in-Q , tagging, removing tag,	Q-in-Q can be implemented by OLT, it does not have to be implemented on the ONT, and ont is not considered for implementation. We believe it is not required to be supported in ONT. Please confirm	No change. ONT needs to support these.
				6. Services	Could you please explaing the scenario/ use case where you would like to use these features	No change, Clause stands as per Corrigendum 3
				6.1) Content Sharing		
				6.2) UPnP Media server		
				6.3) DLNA DMS		
12	8.1	8	45	6.4) Metadata Support		
				Key Events & dates		No change
13	1.1	1	7	1) Bid Security/EMD (Refundable)	Request to consider waiver of bid security for MSME	
14	7.3.0	7	26	Replacement warranty for one (1) years and needs to maintain at least 10 % of SOR as spares (Percentage of spares mentioned is minimum and it have to be planned by Successful bidder to maintain SLAs)	Industry standard terms of CPE warranty is around 1%. Request you to consider & change the 10 % of SOR to 1 % of SOR	Please refer corrigendum
				The Bidder/ any consortium member should have 3 years of experience in manufacturing or supply of CPEs as on date of submission of RFP.		Refer Corrigendum
15	4.2	4	14	Copy of Purchase Orders and client certificate should be submitted. In the case of authorized distributor/dealer, a Letter of Authorization from the OEM/manufacturer. In the case of OEM, the documentary proof for manufacturing the products.	Purchcase orders are confidential and cannot be submitted. Can we provide sales register as proof ?	
16	1.4.1	1.4	Corrigendum -3	Specifications for the OLT		Please refer corrigendum

17				As part of the contract, bidder has to supply the OLTs also along with GPON/Combo boxes. For every 100 GPON/Combo boxes, one PON port needs to be provided. The exact type of OLT and quantities of each type will be specified at the time of ordering the boxes.	Please let us know what is the expected type of OLT deployment in percentage. Such as 8 port - 50%, 16 port - 30%, 48 port - 15% - 96 port - 5%	
18				1. GPON/ ONT 2. Android TV OS IPTV BOX 3. Android TV OS Combo Box 4. OLT	We request you to provide HSN code for the said products in the tender. We need this information, to work out the costing on the products, being certain PCBA/ Modules, we may have to IMPORT	Please refer corrigendum
19				Android TV OS Combo Box	Kindly SPecify the remote details	Please refer corrigendum
20				Details of plastic box	Kindly share the details to work on product cost	The design for all types of CPEs can be OEM choice but the technical specifications complaince should be as per RFP requirements. The final approval for asthetics of the box shall be provided by APSFL post completion of POC.
21		Corrigendum-3-ATV Annexure A: Pre-Qualification Criteria (1)	2	The Bidder/consortium members should be a Company registered in India under the Indian Companies Act 1956/2013 or a Registered Partnership Firm or a Sole Proprietary Firm or LLP. Foreign companies can be a consortium member provided they are manufacturer/OEM of the products being supplied and provided they partner with an MSME registered in Andhra Pradesh, from whom they undertake to procure goods and services not less than 10 % of the order value.`	We request APSFL not to put restriction on foriegn company to partner with an MSME registered in Andhra Pradesh, from whom they undertake to procure goods and services not less than 10 % of the order value.` Therefore, we request APSFL to change the clause as "Foreign companies can be a consortium member with any SI (System Integrator) provided they are manufacturer/OEM of the products being supplied.	No change
22		Corrigendum-3-ATV Annexure A: Pre-Qualification Criteria (4)	3	Bidder/ Consortium (all partners) should have positive net worth for the last 2 audited financial years.	We understand that Bidders Parent Company financial credentials can be taken into consideration if the wholly owned subsidiary company of Parent Comapany is bidding directly.	No change
23		Corrigendum-3-ATV Annexure A: Pre-Qualification Criteria (8)	3	The Bidder / Consortium should have supplied at least 10 lakh CPEs Cumulatively in last 3 FYs Globally.	First, please clarify the 10 lakh CPEs is for OEM vendor all kinds of CPE or the CPE proposed in this tender. Second, as this tender has a very big quantity 5M CPE, it is suggested to define a quantity criteria for one project. Third, we understand that Bidders Parent Company experience can be taken into consideration if the Parent Comapny is the OEM of the product.	Please refer corriengdum
24		General	/	General	For the Google licenses for Android TV, normally when vendor gets project, then vendor starts white list applying and ATC+GTC applying. So at this bidding stage, there is no need for Google licenses, please consider.	The CPE should be certified for ATV compatibility before the bidding stage itself.

25		Corrigendum-3-ATV 1.3 Combo Box with Android TV OS (12)	12	1*USB 3.0 Type A (HOST), 1*USB 2.0 Type A (HOST)	On the one hand, USB3.0 Super Speed has a 5Gbps PHY rate. The data spectrum of USB3.0 is very wide, ranging from DC to 2.5GHz. As test figure from Intel shown, when USB3.0 is active, the noise floor in the 2.4GHz band is raised by nearly 20dB. On the other hand, USB2.0 theoretical transmission speed is 480Mbps. USB2.0 actual transmission speed is not more than 240Mbps. The bandwidth of the local 4K content played from USB storage is maximum 100Mbps. Thus, USB 2.0 (240Mbps) is more than adequate to support this without degrading WiFi performance.	Please refer corriengdum
26		Corrigendum-3-ATV 1.3 Combo Box with Android TV OS (15)	12	3 X RCA output cable(red/white/yellow)	Is it 3.5mm common AV cable?	Please refer corriengdum
27		Corrigendum-3-ATV 1.1 IPTV Box with Android TV OS (20)	7	Device must support multicast as well as unicast services.	What's multicast DRM?	Widevine
28		Corrigendum-3-ATV 1.1 IPTV Box with Android TV OS (20)	8	The box must have DIAL protocol implemented	What's DIAL protocal? Or is it dial application? If it's dial application, APSFL would get permission from dial application vendor	DIAL is Discover-and-Launch protocol used across industry
29		Corrigendum-3-ATV 1.2 GPON ONT Specifications (8.1)	10	RJ-45 10/100/1000 BASE-T	Need clarity how many minimum number of ports?	Please refer corriengdum
30		Corrigendum-3-ATV 1.2 GPON ONT Specifications (10.5)	11	Must expose all its interfaces via HTTP, REST API only when connected directly via USB or RJ45, and over Wi-Fi with password access, which is visible in a menu in the CPE. All messages (both send and receive) must be in JSON-LD format	Need clarity on whether Wi-Fi and USB is also required.Also share the details of the same.	Yes
31		Corrigendum-3-ATV 1.4 Specifications for the OLT	14	As part of the contract, bidder has to supply the OLTs also along with GPON/Combo boxes. For every 100 GPON/Combo boxes, one PON port needs to be provided. The exact type of OLT and quantities of each type will be specified at the time of ordering the boxes.	If we do not provide Combo BOX, can we provide OLT products?	Yes
32		Corrigendum 3-ATV Annexure D- Technical Specifications 1.2 GPON ONT Specifications(11) Environment	11	-5ºC to +60ºC	Pls clarify the ONT working scenario for this project, is it indoor ? Propose to reduce the operating temperature to 0-45 degrees as per Indian operating environment	Please refer corrigendum
33		Corrigendum 3-ATV Annexure D- Technical Specifications 1.4 Specifications for the OLT, 1.4.1 OLT-8port (3) 1.4.2 OLT-16 port (3)	14, 18	The required NMS in addition to management of network elements shall be incorporated optionally with special network planning and management tools for managing all connections through the FTTx network and modelling, planning and span design for FTTx networks etc.	GPON EMS and FTTX Planning Tool is envisaged to support different functionality. Moreover no EMS tool is available which provided the functionality of NMS inbuilt. Therefore it is proposed to either remove the clause or amend accordingly.	No Change

34		Corrigendum 3-ATV Annexure D- Technical Specifications 1.4 Specifications for the OLT 1.4.1 OLT-8port (6) 1.4.2 OLT-16 port (6)	15, 19	support for the Building Integrated Timing Supply (BITS), 10 MHz, 1 pulse per second (1PPS), and time of day (TOD) interfaces. supports synchronous Ethernet (SyncE) and IEEE-1588 functionalities and Shall act as the source for network clocking for TDM, SDH and SONET, SyncE, and GPS interfaces. In addition to the timing services	Broadband network is not suitable for time senitive services, therefore propose to delete the clause accordingly	No change
35		Corrigendum 3-ATV Annexure D- Technical Specifications 1.4 Specifications for the OLT 1.4.1 OLT-8port (6) 1.4.2 OLT-16 port (6)	15, 19	Static routing and Dynamic routing	We understand GPON network is L2 network, so L3 features are not required. Propose to delete this clause accordingly.	As the ONTs which will be managed by these OLTs are Gateway nodes supporting these features it is asked to be supported transparently by the OLT for the subscriber services.
36		Corrigendum 3-ATV Annexure D- Technical Specifications 1.4 Specifications for the OLT 1.4.1 OLT-8port (9) 1.4.2 OLT-16 port (9) 1.4.3 OLT-48 port chassis (7) 1.4.4 OLT-96 port chassis (7)	16, 20, 24, 28	The OLT shall be designed to Operate at 210- 250 V ac Dual Redundant Power supplies	Carrier grade Network/Telecom elements work on rectified -48VDC and support redundancy in Input Power .So, It is suggested to include following clause as intergral part of RFP: "The Proposed GPON OLT should work from -40VDC to -56 VDC and should support redundancy of Power Cards"	No change
37		Corrigendum 3-ATV Annexure D- Technical Specifications 1.4 Specifications for the OLT 1.4.1 OLT-8port (10)	16	The offered OLT should support 4 GPON interfaces, 4 x 1G SFP interfaces ,4 x 10 G SFP+ interfaces	Since 8 Ports are asked for this OLT and with 1:128 split ratio, it can cater 1024 Customers. Average bandwidth for Customer is 20Mbps and with 15% user concurrency ratio, maximum uplink bandwidth required is 1024*0.02Gbps*15% = 3Gbps.(approx.). We understand that such high specification for uplink is not a general requirement and will restrict many GPON OEM from participation in the Tender, which will not be commercially benificial to APSFL So, it is suggested to suitably modify the clause as "1X10G SFP+ interfaces and 2X1G SFP+ Interfaces	No change. The calculation can not be based on single OLT as there will always be cascading of OLTs
38		Corrigendum 3-ATV Annexure D- Technical Specifications 1.4 Specifications for the OLT 1.4.2 OLT-16 port (10)	20	The offered OLT should support 16 GPON interfaces, 8 x 1/10G SFP+ interfaces for uplink	Since 16 Ports are asked for this OLT and with 1:128 split ratio, it can cater 2048 Customers. Average bandwidth for Customer is 20Mbps and with 15% user concurrency ratio, maximum uplink bandwidth required is 2048*0.02Gbps*15% = 6Gbps.(approx.). We understand that such high specification for uplink is not a general requirement and will restrict many GPON OEM from participation in the Tender, which will not be commercially benificial to APSFL. So, it is suggested to suitably modify the clause as "1X10G SFP+ interfaces and 2X1G SFP+ Interfaces	No change. The calculation can not be based on single OLT as there will always be cascading of OLTs
39		Corrigendum 3-ATV General	NA	General	Please clarify whether an OEM can partially bid in the RFP i.e. for one product/ two products out of the three items mentioned in this RFP ?	Yes
40		Corrigendum-3-ATV 1.3 Combo Box with Android TV OS (17)	12	Front Panel: Green LED, Orange LED, Blue LED (Bluetooth) Rear/Side Panel: Power Switch, DC Jack, RJ45, TRRS, TF,HDMI, Micro USB, 2*USB Type-A, Reset Key.	Whether it is that Green LED with blink for Bluetooth Rear Pannel?	The indicators should be provided for each type of connection(bluetooth,Power , RJ45 etc)

41		Corrigendum-3-ATV 1.1 IPTV Box with Android TV OS (20) Corrigendum-3-ATV 1.3 Combo Box with Android TV OS (22)	8&13	Build Tools and packages to develop and test custom made system applications along with a development version of the 10 no's ATV boxes with source or patches (changes to the open source code), and necessary tools to develop and test application shall be provided. Custom made SDK/library shall be made available with access and permission to achieve at least: i) Run default background service. ii) Will be able to give commands to system apps. iii) 3rd party can be started as standalone services. iv) Switch default hardware apps with custom app.	What's "apps" in "iv) Switch default hardware apps with custom app."?	Clause is self explanatory
42		Corrigendum-3-ATV 1.1 IPTV Box with Android TV OS (14)	7	1*HDMI, OUTPUT, HDMI 2.0b	Which is HDCP version, HDCP2.2 & HDCP1.4 or only HDCP2.2?	Clause is self explanatory
43	Annexure D – Technical Specifications	1.1 IPTV Box with Android TV OS	5	16 GB eMMC	Please consider to revise 16GB eMMC into 8GB eMMC.	No change
44	Annexure D – Technical Specifications	1.1 IPTV Box with Android TV OS	9	802.11b/g/n	Please consider to add 1T1R to Wifi Specification.	No change, Clause stands as per corrigendum 3
45	Annexure D – Technical Specifications	1.1 IPTV Box with Android TV OS	11	RJ45, 10/100/1000MBase-T (support IPV4 & IPV6)	Please clarify required number of Ethernet Port on the IPTV Box. In vendor opinion, 1port *10/100MBase-T is enough for the IPTV Box.	No change, Clause stands as per corrigendum 3
46	Annexure D – Technical Specifications	1.1 IPTV Box with Android TV OS	12	1*USB 3.0 TypeA (HOST), 1*USB 2.0 TypeA (HOST)	Please consider to revise USB reuiqrement as 2 * USB 2.0.	Please refer corriengdum
47	Annexure D – Technical Specifications	1.1 IPTV Box with Android TV OS	17	Front Panel: Green LED, Orange LED, Blue LED (Bluetooth) Rear /Side Panel: Power Switch, DC Jack, RJ45, TRRS, TF,HDMI, Micro USB, 2*USB Type-A, Reset Key	Please to check if 'Micro USB' is a typo of 'Micro SD'. If so please revise it as 'Micro SD'.	It has to be considered as Micro SD
48	Annexure D – Technical Specifications	1.1 IPTV Box with Android TV OS	19	-. Model # 2 (Optional): BT with Mic and Speaker along with number pad, must support usage as cordless phone for voice with a key for off-hook indication for initiating outgoing call. Signaling messages and Voice.	We will propose specific service model, features and configuration by having further technical discussion among APSFL, Chipset Vendor and DASAN.	OK
49	Annexure D – Technical Specifications	1.1 IPTV Box with Android TV OS	20	Device must conform to Android requirements as listed in Android CDD 8.1 (https://source.anroid.com/compatibility/android-cdd.pdf)	Please consider to revise CDD 8.1 as CDD 8.0 because this is conflict against Google policy. According to Google policy, Android TV OS 8.0 shall be matched with CDD 8.0, if not Google will not certify on this conflict version between OS and CDD.	Device must conform to Android requirements as listed in Android CDD 8.0 or higher (https://source.anroid.com/compatibility/android-cdd.pdf)

50	Annexure D – Technical Specifications	1.1 IPTV Box with Android TV OS	20	"Build Tools and packages to develop and test custom made system applications along with a development verson of the10 no's ATV boxes with source, and necessary tools to develop and test application shall be provided."	Please consider to remove the term 'with source or patches'. We will provide required ATV boxes with necessary tools as per requirement, but any OS source code shall not be provided according to Android software license policy. It is strictly prohibited that Android certified vendor share full or any part of OS source code.	The clause is applicable for any customizations and system/application software done on top of standard ATV software.
51	Annexure D – Technical Specifications	1.1 IPTV Box with Android TV OS		IPTV Box compatibility with APSFL Live TV	Please clarify if new live TV Box shall support compatibility with current APSFL Live TV Service.	Clause is clear
52	Annexure D – Technical Specifications	1.2 GPON ONT	8.4	802.11b/g/n 2:2 MIMO	Please consider 1T1R instead of 2:2 MIMO.	No Change
53	Annexure D – Technical Specifications	1.2 GPON ONT	10.5	Must expose all its interfaces via HTTP, REST API only when connected directly via USB or RJ45, and over Wi-Fi with password access, which is visible in a menu in the CPE, All message (both send and reveive) must be in JSON-LD format	Must expose all its interfaces via HTTP only when connected directly via USB or RJ45, and over Wi-Fi with password access, which is visible in a menu in the CPE, All message (both send and reveive) must be working through CGI.	Clause stands as per the COrrigendum 3
54	Annexure D – Technical Specifications	1.2 GPON ONT	5.15	ONT shall have software support to send the raw SIP signalling messages (after SIP parsing) and voice data (after decoding) to ATV box over ETH interface and shall be able to receive signalling messages and voice data from ATV (after conversion into ETH packets from BT formats) and RCU (Model # 2) SIP signalling and Voice Coding shall be executed in ONT only.	We will propose specific service model, features and configuration by having further technical discussion among APSFL, Chipset Vendor and DASAN.	No Change
55	Annexure D – Technical Specifications	1.2 GPON ONT	3.9	Routing: Network Access Translation (NAT) and Network	Please provide further specific requirement on NAT features.	The device should support NAT features on multiple WAN sub interfaces one per each VLAN
56	Annexure D – Technical Specifications	1.2 GPON ONT	14	-5℃ to +60℃, 0 - 90% Relative Humidity	Please consider to revise '60℃' to '55℃' as like as previous CPE bid requirement. ONT is working under in-door environment mostly so '60℃' requirement looks not required. As well, ONT chipset itself recommend '55℃' as operation temperature.	Clause stands as per the COrrigendum 3
57	Annexure D – Technical Specifications	1.2 GPON ONT	6.9	ONT should be able to share SIP server information received via DHCP to LAN side.	We will propose specific service model, features and configuration by having further technical discussion among APSFL, Chipset Vendor and DASAN.	Clause is clear
58	Annexure D – Technical Specifications	1.2 GPON ONT	6.17	ONT should have ability to set DSCP values.	Please clarify this is mandatory or optional requirement, as well provide expected service with this feature.	Mandatory
59	Annexure D – Technical Specifications	1.2 GPON ONT	6.19	ONT should be able to send / transfer the voice call though the DIAL protocol to the STB	We will propose specific service model, features and configuration by having further technical discussion among APSFL, Chipset Vendor and DASAN.	DIAL is Discover-and-Launch protocol used across industry
60	Annexure D – Technical Specifications	1.3 Combo Box with Android TV OS	5	16 GB eMMC	Please consider to revise 16GB eMMC into 8GB eMMC.	Clause stands as per the COrrigendum
61	Annexure D – Technical Specifications	1.3 Combo Box with Android TV OS	9	802.11b/g/n	Please consider to add 1T1R to Wifi Specification.	Clause stands as per the COrrigendum

62	Annexure D – Technical Specifications	1.3 Combo Box with Android TV OS	12	1*USB 3.0 TypeA (HOST), 1*USB 2.0 TypeA (HOST)	Please consider to revise USB reuiqrement as 2 * USB 2.0.	Please refer corrigendum
63	Annexure D – Technical Specifications	1.3 Combo Box with Android TV OS	17	Front Panel: Green LED, Orange LED, Blue LED (Bluetooth) Rear /Side Panel: Power Switch, DC Jack, RJ45, TRRS, TF,HDMI, Micro USB, 2*USB Type-A, Reset Key	Please to check if 'Micro USB' is a typo of 'Micro SD'. If so please revise it as 'Micro SD'.	Clause stands as per the COrrigendum
64	Annexure D – Technical Specifications	1.3 Combo Box with Android TV OS	19	-. Model # 2 (Optional): BT with Mic and Speaker along with number pad, must support usage as cordless phone for voice with a key for off-hook indication for initiating outgoing call. Signaling messages and Voice.	We will propose specific service model, features and configuration by having further technical discussion among APSFL, Chipset Vendor and DASAN.	Clause is clear
65	Annexure D – Technical Specifications	1.3 Combo Box with Android TV OS	22	Device must conform to Android requirements as listed in Android CDD 8.1 (https://source.anroid.com/compatibility/android-cdd.pdf)	Please consider to revise CDD 8.1 as CDD 8.0 because this is conflict against Google policy. According to Google policy, Android TV OS 8.0 shall be matched with CDD 8.0, if not Google will not certify on this conflict version between OS and CDD.	Device must conform to Android requirements as listed in Android CDD 8.0 or higher (https://source.anroid.com/compatibility/android-cdd.pdf)
66	Annexure D – Technical Specifications	1.3 Combo Box with Android TV OS	20	"Build Tools and packages to develop and test custom made system applications along with a development verson of the10 no's ATV boxes with source, and necessary tools to develop and test application shall be provided."	Please consider to remove the term 'with source or patches'. We will provide required ATV boxes with necessary tools as per requirement, but any OS source code shall not be provided according to Android software license policy. It is strictly prohibited that Android certified vendor share full or any part of OS source code.	The clause is applicable for any customizations and system/application software done on top of standard ATV software.
67	Annexure D – Technical Specifications	1.3 Combo Box with Android TV OS		IPTV Box compatibility with APSFL Live TV	Please clarify if new live TV Box shall support compatibility with current APSFL Live TV Service.	Clause is clear
68	Annexure D – Technical Specifications	1.4.1 OLT-8 Port			Please revise full contents of specification as per RFP No.: APSFL/ OLTs/227/2018, Dated 15/05/2018, Corrigendum 1, Dt: 26/05/2018.	Refer corrigendum
69	Annexure D – Technical Specifications	1.4.2 OLT-16 Port			Please revise full contents of specification as per RFP No.: APSFL/ OLTs/227/2018, Dated 15/05/2018, Corrigendum 1, Dt: 26/05/2018.	Refer corrigendum
70	Annexure D – Technical Specifications	1.4.3 OLT-48 Port Chassis			Please revise full contents of specification as per RFP No.: APSFL/ OLTs/227/2018, Dated 15/05/2018, Corrigendum 1, Dt: 26/05/2018.	Refer corrigendum
71	Annexure D – Technical Specifications	1.4.4 OLT-96 Port Chassis			Please revise full contents of specification as per RFP No.: APSFL/ OLTs/227/2018, Dated 15/05/2018, Corrigendum 1, Dt: 26/05/2018.	Refer corrigendum

72	Annexure B - Schedule of Requirement	2	4	Every 100 ONT or 100 Combo Boxes shall be supplied with one port of OLT which is interoperable with the ONTs being supplied and the existing ONTs/Combo Boxes in the APSFL Network. This OLT shall have interoperability with the APSFL BSS through its management system. OLTs shall be provided along with the necessary Element Management System which should be scalable for managing up to 10 million ONTs. The Management system should be web based and should expose REST API to integrate with BSS/OSS. The EMS shall be supplied along with the Server and software licences if any at no additional cost	APSFL has asked for different configurations of OLT in tender (One PON port to be provided with every 100 ONTs) - viz. 8 PON ports, 16 PON ports ,48 PON ports (with option of 32 and 48 pon ports), 96 PON ports (with option of 80 and 96 PON ports). Kindly provide percetnage PON ports distribution for different types of OLTs to be considered for the 1,00,00,000 ONTs so as to have level playing field for all OEMs.	Bidder shall provide free OLT with 5 Years warranty for every 100 PON ports as per the below table 1. 96 port OLT for 5% of the PON ports 2. 48 port OLT for 10% of the PON ports 3. 32 port OLT for 10% of the PON ports 4. 16 port OLT for 25% of the PON ports 5. 8 port OLT for 50% of the PON ports
73	3. Scope of Work//Sample acceptance & testing	New clause	12	APSFL shall provide the box designs for all CPEs and adherence to these designs is mandatory to ensure uniformity	Requesting further elaboration on this clause as to the expectation of APSFL from OEM's - (A) Does APSFL expect their logo printing on the ONTs? OR (B) APSFL wants external casing of the CPE as per APSFL's requirement? If yes, please provide the material, color, dimensions of the box to estimate the pricing.	The design for all types of CPEs can be OEM choice but the technical specifications complaince should be as per RFP requirements. The final approval for asthetics of the box shall be provided by APSFL post completion of POC.
74	1.4 Specifications for the OLT	1.4.1/1.4.2/1.4.3/1.4.4	14/18/22/26	The IGMP forwarding capabilities on OLT should be no less than 2000pps.	Plz. confirm if the requirment is for IGMP processing (control plane) ONLY and not forwarding at dataplane level.	No change
75	1.4 Specifications for the OLT	1.4.1/1.4.2/1.4.3/1.4.4	15/19/22/26	support for the Building Integrated Timing Supply (BITS), 10 MHz, 1 pulse per second (1PPS), and time of day (TOD) interfaces. supports synchronous Ethernet (SyncE) and IEEE-1588 functionalities and Shall act as the source for network clocking for TDM, SDH and SONET, SyncE, and GPS interfaces. In addition to the timing services	Our Understanding is that APSFL network is complete IP network and GPON OLTs are connected to the ONTs. Please confirm the requirement of functionlity of OLT to support source for network clocking for TDM, SDH and SONET, SyncE, and GPS interfaces. We believe that GPON networks do NOT need these interfaces and requirements fo classical TDM networks.	No change
76	1.4 Specifications for the OLT	1.4.1/1.4.2/1.4.3/1.4.4	15/19/23/27	The offered NG-PON equipment shall support a complete T-Cont type (Type 1, 2, 3, 4, and 5) according to ITU-T G.983.4. The bidder shall explain the T-Cont types supported and typical usage of each of it respectively.	ITU-T G.983.3 is BPON standard whereas GPON follows G.984.x series hence recommanding to remove compliance in accordance with G.983.4	Please refer corrigendum
77	1.4 Specifications for the OLT	1.4.1	15	ITU-T G.703: Physical/electrical characteristics of hierarchical digital interface.	confirm the requirement of functionlity of OLT to support source for network clocking for TDM, SDH and SONET, SyncE, and GPS interfaces. We believe that GPON networks do NOT need these interfaces and requirements fo classical TDM networks.	No change. This is to support any other operator connectivity
78	1.4 Specifications for the OLT	1.4.1	15	ITU-T G.704: Synchronous frame structures used at 1544, 6312, 2048, 8448 and 44 736 Kbit/s hierarchical levels.		No change. This is to support any other operator connectivity
79	1.4 Specifications for the OLT	1.4.1/1.4.3/1.4.4	15/23/27	ITU-T G.823: The control of jitter and wander within digital networks which are based on the 2048 Kbit/s hierarchy.	TU-T G.823 is applicable for network based on 2048 kbit/s hierarchy which is not applicable for GPON.(ITU-T G.823 is a standard for TDM,SDH with is based on 2048 kbit/s hierarchy. Hence requesting to remove it from the IP based network of GPON.	Please refer corrigendum
80	1.4 Specifications for the OLT	1.4.1/1.4.2/1.4.3/1.4.4	15/19/23/27	ITU-T G.983.4: A broadband optical access system with increased service capability using dynamic bandwidth assignment.	G.983.4 is BPON standard, GPON follows G.984.x series standards. Hence requesting to remove the same	Please refer corrigendum
81	1.4 Specifications for the OLT	1.4.1/1.4.2/1.4.3/1.4.4	15/19/23/27	ITU-T G.987.1: XG-PON, General requirements.	symmetrical 10 Gbps. Most futuer applications of GPON would be reqruiring symmetrical bandwidth. Nokia OLT support NG-PON/XGS PON for 10G/40G symmetrical bandwidth with various applicable standards such as G.989,G.989.1,G.989.2,G.989.3,G.9807.1(for XGS PON). Hence, kindly requesting to make compliance to XGS PON	No change
82	1.4 Specifications for the OLT	1.4.1/1.4.2/1.4.3/1.4.4	15/19/23/27	ITU-T G.987.2: XG-PON, Physical media dependent (PMD) layer specification.		No change
83	1.4 Specifications for the OLT	1.4.1/1.4.2/1.4.3/1.4.4	15/19/23/27	ITU-T G.987.3: XG-PON, Transmission convergence (TC) specifications		No change

84	1.4 Specifications for the OLT	1.4.1/1.4.2/1.4.3/1.4.4	15/19/23/27	ITU-T G.988: XG-PON, ONU management and control interface (OMCI) specification	standards mandatory rather than limiting the compliance to XG-PON (10/2.5 Gbps).	No change
85	1.4 Specifications for the OLT	1.4.1	15	IEEE 802.1w Rapid Spanning Tree Protocol of at least 8 ports, based on port-based, address-based, and round robin	Besides RSTP, ERPS is also a prominent ring protection protocol, which is implemented in the GPON OLTs across multiple oeprators in India. Requesting to add ERPS support as mentioned in 16 PON port OLT requirement in section 1.4.2 sub section 8 page 20.	Accepted. ERPS support is also required.
86	1.4 Specifications for the OLT	1.4.1	16	The offered OLT should support 4 GPON interfaces, 4 x 1G SFP interfaces ,4 x 10 G SFP+ interfaces.	Kindly confirm how many uplink interface SFPs are required to be provided with every OLT and the type of each SFP (10/40/80 km or short range)	2x10G,10Km
87	1.4 Specifications for the OLT	1.4.1	17	The offered OLT should be expandable to support additional 4 x GPON interfaces.	Our understaning of this clause is that APSFL requires OLTs with 8 PON port capacity with 4 PON ports activated on day 1; with option to expand it by 4 additional PON ports. Requesting to keep a standard 8 PON ports configuration on day one as these OLTs are to be bundled as 1 PON port per 100 CPE.	Yes. Accepted. Refer corregendum
88	1.4 Specifications for the OLT	1.4.2	20	The offered OLT should support 16 GPON interfaces, 8 x 1/10G SFP+ interfaces for uplink	Kindly confirm how many uplink interface SFPs are required to be provided with every OLT and the type of each SFP (10/40/80 km or short range)	2 SFPs with 10G, 10Km
89	1.4 Specifications for the OLT	1.4.2	20	The offered OLT should be expandable to support additional 4 x GPON interfaces.	Ask of OLT is 16 PON ports and this clause indicates additional 4 PON ports required on 16 PON ports making the total PON port requirements to 20 on a 16 PON port OLT. Generally OLTs are available in multiples of 8 / 16 PON ports (depending upon the card configuration). Requesting to remove this requirement from the 16 PON port OLT.	Please refer corriengdum
90	1.4 Specifications for the OLT	1.4.3	21	4 * 10 Gbe XFP/SFP+	Kindly confirm how many uplink interface SFPs are required to be provided with every OLT and the type of each SFP (10/40/80 km or short range)	Yes. Two 10G, 10Km
91	1.4 Specifications for the OLT	1.4.3	21	Required interface/ Ports:32 PON ports and 48 PON ports	Requesting to keep a standard 48 PON ports requirement on the 48 port chassis as these OLTs are to be bundled as 1 PON port per 100 CPE.	Please refer corriengdum
92	1.4 Specifications for the OLT	1.4.4	25	8* 10 Gbe XFP/SFP+	Kindly confirm how many uplink interface SFPs are required to be provided with every OLT and the type of each SFP (10/40/80 km)	Yes. Two 10G, 10Km
93	1.4 Specifications for the OLT	1.4.4	25	Required interface/ Ports:80 PON ports and 96 PON ports	Requesting to keep a standard 96 PON ports requirement on the 96 port chassis as these OLTs are to be bundled as 1 PON port per 100 CPE.	Please refer corriengdum