

O/o Chief General Manager
(Broadband Networks , Bangalore)



भारत संचार निगम लिमिटेड
(भारत सरकार का उपक्रम)
BHARAT SANCHAR NIGAM LIMITED
(A Govt. of India Enterprise)
Broadband Networks Circle

PGM/BBNW/FTTH/BG/2018-19

dated 24 /09/2020

To
The Chief General Managers
Telecom Circles
SSA Heads

Sub: Implementation of Landline to Bharat Fiber Conversion
Ref: BSNLCO-/ITCP/12(14)/1/2020-IT-CFA dated 07/09/2020

The demand for FTTH connection is increasing day by day. Many Broadband customers want to convert to FTTH by retaining their Land Line Number. This was not possible earlier, BBNW team was working on the RETENTION of the EXISTING TELEPHONE NUMBER and providing FTTH services. With this facility many customers can be attracted toward FTTH Service.

BSNL FTTH VOIP Service was working with the number series 29XX across PAN India. All these numbers were working through CDOT NGN Core. With the introduction of **the new Landline to Fiber Portability**, any number series working in BSNL landline exchanges (Generally 21X to 28X series) can be provided through Bharat Fiber Voice and Broadband service. New creation of FTTH BB with VOIP service can also use Land line Number series of UTStarcom and Huawei IMS Core.

Currently the facility can be extended to only those landline number series working from UTStarcom and Huawei NGN IMS cores.

A POC has been conducted in Bangalore in coordination with NGN Team. Testing has been conducted successfully with both IMS Core of Huawei and UTStarcom. Provisioning flow is also included in the O&M document. The procedure to be followed by the Node In charge attached as O&M Document (**Annexure-A**)

It is hereby requested to give wide publicity such that the customers are made aware that the Bharat Fibre connections can be provided **without any change** in the Landline number enabling **Landline to Fiber Portability**.

Lets give wide publicity to this FACILITY.

*Copy to:
DIR CFA - for kind info.pl.*

Sd/- bdd 24/9/2020
(D.M EZHIL BUDDHAN)
Chief General Manager
Broadband Networks
Bangalore 560005

A decorative graphic on the right side of the page features three blue circles of varying sizes and two thin blue lines. One line starts from the top left and extends towards the center, while another starts from the top right and extends towards the center. The circles are positioned at the ends of these lines and are semi-transparent.

O & M Document Landline to Bharat Fibre Conversion

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Bharat Fibre connections can be provided without any change in the Landline number enabling Landline to Fiber Portability

Broadband Networks

9/25/2020



ANNEXURE-A
O & M Document for Landline to Bharat Fiber conversion.

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1. General Information

Implementation of Land Line to Bharat Fibre conversion is achieved through the following IMS cores

- Huawei Core
- UT Core

With this all the existing number levels of both the core will be available for provisioning FTTH Broadband Connection. VOIP service will be available through the existing Land Line number series of both Huawei and UT core.

An exclusive VLAN of **1849** will be used for provisioning this service through BSNL and Franchisee OLTs. A separate context of VOIP-IMS will be created in each and every BNG. One context is sufficient for both the cores. A different set of IP pools will be configured in the newly created contexts. The same configured IP Pool can be used for both the cores. All the VOIP pools will be configured in DHCP mode only.

DHCP servers and DNS servers are configured according to Zone.

DHCP server Location	DHCP IP	Zones
Bangalore	172.30.104.162	South Zone
Pune	172.30.132.161	North, East and West Zones
DNS server Location	DNS IP	Zones
Bangalore	172.30.249.11	South Zone
Noida	172.30.249.33	North, East and West Zones



Circle wise availability of Huawei and UT core

Huawei Core Circle wise		UTStarcom Core Circle wise	
Zone	Circle	Zone	Circle
South	Andhra Pradesh, Telangana	South	Andhra Pradesh
	Chennai		Chennai
	Karnataka		
	Kerala		Kerala
	Tamil Nadu Excluding Chennai		Telangana
North	Himachal Pradesh	North	Himachal Pradesh
	Punjab, Chandigarh		Punjab, Chandigarh
	Haryana		Haryana
	Jammu & Kashmir		Jammu & Kashmir
	Rajasthan		Rajasthan
	Uttar Pradesh East		Uttar Pradesh East
	Uttar Pradesh West		Uttar Pradesh West
	Uttaranchal		Uttaranchal
West	Chhattisgarh	West	Chhattisgarh
	Gujarat		Gujarat
	Madhya Pradesh		Madhya Pradesh
	Maharashtra		Maharashtra
East	Kolkata		
	Assam		
	West Bengal Excluding Kolkata, Andaman Nicobar , Sikkim, Port Blair		
	Nagaland, Arunachal Pradesh, Manipur		
	Tripura, Meghalaya, Mizoram		
	Orissa		
	Bihar		
	Jharkhand		

While implementing Land Line conversion to Bharat Fibre the domain name has to be configured in ONT configuration instead of IP. All the details with respect to domain and ONT configurations are attached in the **Annexure: I**. The domain configuration in ONT plays a vital role while doing PR DR Switch over. Domain will help us to migrate to DR without any service outage during the PR DR activity.

Provisioning flow is also ready for the seamless migration of existing Land Line with/without Broadband to FTTH along with new creation.



2. NETWORK CONFIGURATION:

2.1. Context creation-MPLS

- Node in charge has to raise a request to MPLS for Context creation (**voip-ims**) through BMAC Portal.

2.2. Context creation-BNG

- After context creation is done at MPLS end, Node in charge has to book a remedy docket to respective NOC/RPoPs for configuring the voip-ims context in the BNG. Sample BNG configuration is attached.

```
[local]bgl-ras-bng-bge-01>context voip-ims
[voip-ims]bgl-ras-bng-bge-01>show configuration
Building configuration...

Current configuration:
!
context voip-ims
!
description *** Context for VPN of VOIP IMS ***
!
!
no ip domain-lookup
!
interface UPLINK-01
description *** Uplink Interface-01 for voip-ims ***
ip address 172.16.0.9/30
!
interface VOIP-IMS-DHCP-01 multibind
description *** Interface for Third party DHCP 1849 LAN pool***
ip address 10.107.8.1/24
dhcp relay 65535
ip arp proxy-arp
ip pool 10.107.8.0/24
ip access-group virus-dns in
ip access-group virus-dns out
no logging console
!
```



2.3. VOIP Pool Allotment and Configuration.

- Once context is created and configured in the BNG, Node in Charge may book a remedy docket to respective NOC/ RPoP for VoIP IP Pool allotment by sharing BNG Details.
- IP Pool will be allotted and configured by respective NOC/RPOP FTTH team.

2.4. DHCP Configuration.

- NOC /RPOP FTTH shall send a mail to Sterlite team (DHCP Server team) with copy to Server team to configure the IP pool in DHCP server.

2.5. OLT Configuration.

- Once pool is received, Node in Charge may book another remedy docket to respective NOC/ RPoP for binding the OLT outer vlan with the new DHCP interface (1849) and pass the voip VLAN 1849 at all related network elements.
- Franchise has to pass, the voip VLAN 1849 at the OLT end, similar to 1831.

2.6. ONT Configuration

In the ONT configuration

- DHCP has to be selected
- Vlan ID has to be given 1849.
- Request DNS has to be enabled
- Domain name has to be assigned as per CORE (Huawei or UT Core) and as per CIRCLE as mentioned in **Annexure- I**.
- Enter Username and password.
- Check and verify IP assigned, Gateway, Subnet Mask and DNS
- If Configuration is correct and VoIP IP, Subnet Mask, Gateway and DNS are assigned correctly, VoIP status should be REGISTERED.



3. PROVISIONING FLOW

- Enabling of number Level in ITPC.
- Presently for FTTH provisioning 29XX level is working from CDOT Core.Land line Levels of Huawei and UT core should be made available for provisioning, in coordination with ITPC.
- CDR order flow for provisioning of number is attached in **Annexure-II**.
- Detailed ONT configuration for number provisioning in TIP and BSNL OLT is attached in **Annexure-III.a & Annexure-III.b**.

4. Roles and Responsibility

SI NO	Roles	Team Involved	Responsibility
1	Creation of VOIP_IMS in BNG.	NIB/MPLS/BBNW	New context has to be created in BNGs for provisioning of numbers through IMS core.
2	BNG wise IP allotment of VOIP Pool and configuration in all BNGs	BBNW	All required pools will be configured in BNGs.
3	DHCP configuration	BNG/SERVER/STERLITE	VOIP Pool needs to be allowed in DHCP servers.
4	ONT/OLT configuration with new procedure	BBNW/Node In Charge/Franchise	OLT and ONT configuration needs to be done as per the shared procedure at all levels.
5	Number Provisioning	ITPC /IMS Core	Presently for FTTH Provisioning 29XX with respect to CDOT Core. Land line Levels of Huawei and UT core should be made available for provisioning.
6	PR DR Switch over	RCNGN/FTTH NOC	FTTH NOC will change the SBC in DNS Server

5. Troubleshooting

The different scenarios of IMS VOIP trouble shooting mechanism is attached in **Annexure IV**.



6. Contact Details

1.FTTH Bangalore Team				
S/No	Name	Designation	Mobile number	Email id
1	Sh. P Ramanathan	DGM(Admin & BB)	94861 03881	rambsnl@bsnl.co.in
2	Smt. Veena A V	DE(FTTH& Admin)	94499 58122	veena_av@bsnl.co.in
3	Sh. Krishna Kumar T B	SDE(FTTH)	94835 36370	krishnakumartb@bsnl.co.in
4	FTTH NOC	Office	080-2202 8885	ftth_bangalorenoc@bsnl.co.in
5	FTTH NOC	Office		ftthbb@gmail.com

1.RCNGN Bangalore Team				
S/No	Name	Designation	Contact Number	Email id
1	Sh.Harish S	SDE (RC-NGN)	9449991230	toharish@gmail.com
2	RCNGN,Bangalore	Office	080-24441002,24441003	imsbg@googlegroups.com

2.RCNGN Hyderabad Team				
S/No	Name	Designation	Contact Number	Email id
1	Sh.A. RAJASEKHAR REDDY	SDE-Huawei Core	9440000957	19arsreddy77@gmail.com
2	RCNGN Hyderabad	Office	040-24161222	imscorehyd2@gmail.com
3	Sh.B.Satish babu	SDE,NGN,UT Core	9490213366	bsbabu2011@gmail.com
4	Smt. M.Leena Anuradha	SDE(NGN),HYD	9494898811,040-23325585	ichrislee@gmail.com

3.RCNGN Kolkata Team				
S/No	Name	Designation	Contact Number	Email id
1	Sh. Kingshuk Maity	SDE (Admn/NGN)	9433400239	maitykingshuk@gmail.com
2	RCNGN Kolkata	Office	044-22625960	bsnl.ims.kol@gmail.com

4.RCNGN Bhubaneswar Team				
S/No	Name	Designation	Contact Number	Email id
1	Sh.Gour Gopal Pattnayak	SDE	9437001600	goura123@gmail.com
2	RCNGN Bhubaneswar	Office	0674-2399000	rcesbbsr@gmail.com

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6.RCNGN Lucknow Team				
S/No	Name	Designation	Contact Number	Email id
1	Sh.Ajay Kumar Jaiswal	SDE	9432001947	akjaiswal@bsnl.co.in
2	RCNGN Lucknow	Office	0522-2424955	rcngn.lko@gmail.com

5.RCNGN Chandigarh Team				
S/No	Name	Designation	Contact Number	Email id
1	Smt. Indu Bagri	SDE-Huawei Core	9417744334	indbagri12@gmail.com
2	RCNGN Chandigarh	Office	0172-2780202	
3	Shri.Vinod Bansal	SDE. UT Core	9449856089	vinod.rcngn@gmail.com

7.RCNGN Pune Team				
S/No	Name	Designation	Contact Number	Email id
1	Smt. Vandana Chavan	SDE	9422527527	sdercngn@gmail.com
2	RCNGN Pune	Office	020-26112200	dgmrcngnpune@gmail.com

8.RCNGN Ahmedabad Team				
S/No	Name	Designation	Contact Number	Email id
1	Shri N. N. Soni	SDE	9426021921	snikunj.bsnl@gmail.com
2	RCNGN Ahmedabad	Office	079-27423005	imscoreahd1@gmail.com

ANNEXURE-I			
Huawei Core & Domain Details			
Zone	Huawei Core	Circle	Domain Name
South	Bangalore	Kerala	kl.ftth.ims.bsnl.in
		Karnataka	ktk.ftth.ims.bsnl.in
	Hyderabad	Tamil Nadu Excluding Chennai	tn.ftth.ims.bsnl.in
		Chennai	ch.ftth.ims.bsnl.in
		Andhra Pradesh, Telengana	ap.ftth.ims.bsnl.in
North	Chandigarh	Himachal Pradesh	hp.ftth.ims.bsnl.in
		Punjab	pb.ftth.ims.bsnl.in
		Haryana	hr.ftth.ims.bsnl.in
		Jammu & Kashmir	jk.ftth.ims.bsnl.in
	Lucknow	Rajasthan	rj.ftth.ims.bsnl.in
		Uttar Pradesh East	upe.ftth.ims.bsnl.in
		Uttar Pradesh West	upw.ftth.ims.bsnl.in
		Uttranchal	ut.ftth.ims.bsnl.in
West	Pune	Chhattisgarh	cg.ftth.ims.bsnl.in
		Maharashtra	mh.ftth.ims.bsnl.in
	Ahmedabad	Gujrat	gj.ftth.ims.bsnl.in
		Madhya Pradesh	mp.ftth.ims.bsnl.in
East	Kolkata	Kolkota	kol.ftth.ims.bsnl.in
		Assam	as.ftth.ims.bsnl.in
		West Bengal Excluding Kolkota, Andaman Nicobar , Sikkim, Port Blair	wb.ftth.ims.bsnl.in
		Nagaland, Arunachal Pradesh, Manipur	ne1.ftth.ims.bsnl.in
		Tripura, Meghalaya, Mizoram	ne2.ftth.ims.bsnl.in
	Bhuvaneshwar	Orissa	or.ftth.ims.bsnl.in
		Bihar	bh.ftth.ims.bsnl.in
		Jharkhand	jh.ftth.ims.bsnl.in

UTSTARCOM Core & Domain Details			
Zone	Utstarcom Core	Circle	Domain Name
South	Hyderabad	Kerala	kl.ftth.utims.bsnl.in
		Chennai	chn.ftth.utims.bsnl.in
		Andhra Pradesh	ap.ftth.utims.bsnl.in
		Telengana	ts.ftth.utims.bsnl.in
North	Chandigarh	Uttar Pradesh East	upe.ftth.utims.bsnl.in
		Haryana	hr.ftth.utims.bsnl.in
		Rajasthan	rj.ftth.utims.bsnl.in
		Himachal Pradesh	hp.ftth.utims.bsnl.in
		Punjab, Chandigarh	pb.ftth.utims.bsnl.in
		Uttranchal	ukd.ftth.utims.bsnl.in
		Uttar Pradesh West	upw.ftth.utims.bsnl.in
		Jammu & Kashmir	jk.ftth.utims.bsnl.in
West	Chandigarh	Gujrat	gj.ftth.utims.bsnl.in
		Madhya Pradesh	mp.ftth.utims.bsnl.in
		Chattisgarh	cg.ftth.utims.bsnl.in
		Maharashtra	mh.ftth.utims.bsnl.in

Annexure – II
CDR Order Flow For Provisioning of Number

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1. Introduction

This document is intended for the user audience who are going to create the new flow in the system on regular basis. The document provides the basic knowledge and flow designed under the scope of the CR2234 – LL to FTTH conversion.

In this order will be created for the existing LL or LL+BB customers for converting them into the Bharat fiber Voice or Bharat Fiber Voice +Bharat Fiber BB customers. LL disconnection is to be raised first and in continuation to that Bharat Fiber orders will be raised. Once Disconnection due to conversion order is completed after feasibility check in clarity and on successfully completion of that Bharat Fiber provisioning order will hit and closed. This marks the successful conversion of customer from LL to FTTH in the system.

Kindly refer to the validation and notes section as well for the different validation and exception as in current deployed process.

2. Instruction / Steps for new flow (LL to FTTH Conversion)

2.1 Order Flow

1. Click on the customer asset and enter the desired number in the telephone number and click enter click on the asset id and the asset details will be shown on the page.
2. Click on the Disconnect button to create disconnection order (disconnection order due to conversion)

Asset Id, Telephone number: 3133384, 0755-2567059

Fact Sheet Disconnect Modify Shift Transfer BB Disconnect

Installed Base Hierarchy

Description	Product ID	Produ...
0755-2567059		
Landline	D6	

General Data

Asset Technical Details

Asset ID: 3133384
Created On/At: 06.01.2020 16:50:43

Channel Information

Sales Channel: Walk-in
Franchisee Code: Franchisee
Work Franchisee: BSNL
Maintenance Franchisee: BSNL
TP Flag: N
Modern Franchisee: Modern Franchisee
HRMS Number: HRMS Number

Service Information

Broadband Service: No
BB Only Flag:
WIFI Flag:
Service Line: BASIC PHONE SERVICE
Service: WIRELINE
Service Type: LANDLINE
Service Sub-type: FIXED LANDLINE
VLL TNF: NO
Usage Code: RESIDENTIAL
Connection type: Permanent
Concessional group: Concessional group
Service Category: Non-OYT General
Broadband Portal ID: Broadband Portal ID
Free Phone Type: Free Phone Type
Hotline Number: Hotline Number

BSNL Phone Number

Phone Number: 0755-2567059
Main Phone Number: Main Phone Number
Old Telephone Number: Old Telephone Number
Free Phone: Phone Number: Free Phone: Phone Number
BSNL Number Type: STANDARD
Service Start Date: 06.01.2020
Service End Date: Service End Date

Status Details

Service Status: Created
Normal Status: ACTIVE
Operating Status: Active
Status Reason: Status Reason
CLM Status: CLM Status

Address Technical Details

Installation Addr. Id: 0006277220
Installation Type: URBAN
Billing Address Id: 0006277225
Bill Corres. Add Id: 0006277220

Technical Details

Back End Service Id: 000115445
Backend Service Id(Complaint): Backend Service Id(Complaint)
Handset Provided: X
Internal Wiring prov: X
BSNL Area Code: BPLGVPH01
Exchange Name: BPLGVPP
BSNL Centrex Free: BSNL Centrex Free
Centrex Group Id: Centrex Group Id

VPN Information

- Click on the BSNL service order in the transaction type pop up displayed on screen. This will take user to the existing disconnection order screen.

Maximum Number of Results: 10

Select Transaction Type -- Webpage Dialog

http://wt33crm1.wdc.bsnl.co.in:8000/sap(bD11biZjPTQwMCZkPW1pbq=)/bc/bsp/sap/bsp_wd_base/popup_buffered_frame.htm?popup-name=_POPUP01

Transaction Type Description
BB Over EPABX
BroadBand Order
BSNL Adjustment req
BSNL IPTV Order
BSNL Service Order
BSNL Service Request
E-Stapling Ser. Req.

http://wt33crm1.wdc.bsnl.co.in:8000/sap(bD11biZjPTQwMCZkPW1pbq=)/bc/bsp/s Internet | Protected Mode: On

- On the disconnection order screen, a new Order type is added for the conversion named as 'Bharat **Fiber Conversion**'. Select this value from the order type drop down and press enter.

BSNL Service Order: New

Save | Cancel | Create Broadband Connection | Print | Print Preview | Actions | Reject All Items | More

Enter Call Center Agent (Retention)
 Enter Operations Manager - SSA
 Enter Deputy Operations Manager- SSA

Centrex Group ID
 Centrex Short Number
 Corporate Group ID
 CUG Group ID
 CUG Group
 Preferred Number %
 Employee Responsible: Mr. Samardeep Banyal
 Udaan Flag: No

Service Category

Service Type: Landline
 Order Type: Disconnect
 Order Sub-Type: Disconnect
 Disconnection Reason: Disconnect
 Disconnection Sub Reason: Bharat Fiber Conversion
 Cancellation Reason

Note

Handset Acq. Type
 ES Number
 Receipt No. (Purchased Acc.)
 MSC Code
 Purpose of connection

Internal Wiring Prov
Handset Required

Dates

Request Creation Date: 21.08.2020
 Customer Requested Date: 21.08.2020
 No of Days
 Revised End Date

Franchise Details

Sales Channel: Walk-in
 HRMS Number
 Franchisee Code
 DSA code
 Indoor Completion Date
 ONT Franchisee

Exchange Data

STD Code

Home | Edit List | OPEN DASHBOARD

- The Disconnection reason and Disconnection sub reason will be auto populated as 'Conversion to Bharat Fiber' and parent product will automatically populated on the dashboard in delete as existing.

BSNL Service Order: New

Save | Cancel | Create Broadband Connection | Print | Print Preview | Actions | Reject All Items | More

Item 10: Enter the order quantity (No schedule line found)
 Enter Call Center Agent (Retention)
 Enter Operations Manager - SSA

CUG Group
 Preferred Number %
 Employee Responsible: Mr. Samardeep Banyal
 Udaan Flag: No

Service Category

Service Type: Landline
 Order Type: Disconnect
 Order Sub-Type: Bharat Fiber Conversion
 Disconnection Reason: Conversion to Bharat Fiber
 Disconnection Sub Reason: CONVERSION TO BHARAT FIBER
 Cancellation Reason

Note

Handset Acq. Type
 ES Number
 Receipt No. (Purchased Acc.)
 MSC Code
 Purpose of connection

Customer Requested Date: 21.08.2020
 No of Days
 Revised End Date

Franchise Details

Sales Channel: Walk-in
 HRMS Number
 Franchisee Code
 DSA code
 Indoor Completion Date
 ONT Franchisee

Exchange Data

STD Code

Home | Edit List | OPEN DASHBOARD

Show: All Items

Actions	Item No.	Higher-Level Item	Product ID	Quantity	Unit	Product	Item Category	Net
	10		D6	1	EA	Landline	Landline Parent	

- Now click on the Save button, the order will be saved in 'Open' status. Also a new button will be highlighted on the screen as 'Bharat Fiber Conversion'.

BSNL Service Order: 8000259542

Save | Cancel | Create Broadband Connection | Print | Print Preview | Actions | Reject All Items | More

017 is not a valid entry for field SR Type
 Enter Call Center Agent (Retention)
 Enter Operations Manager - SSA

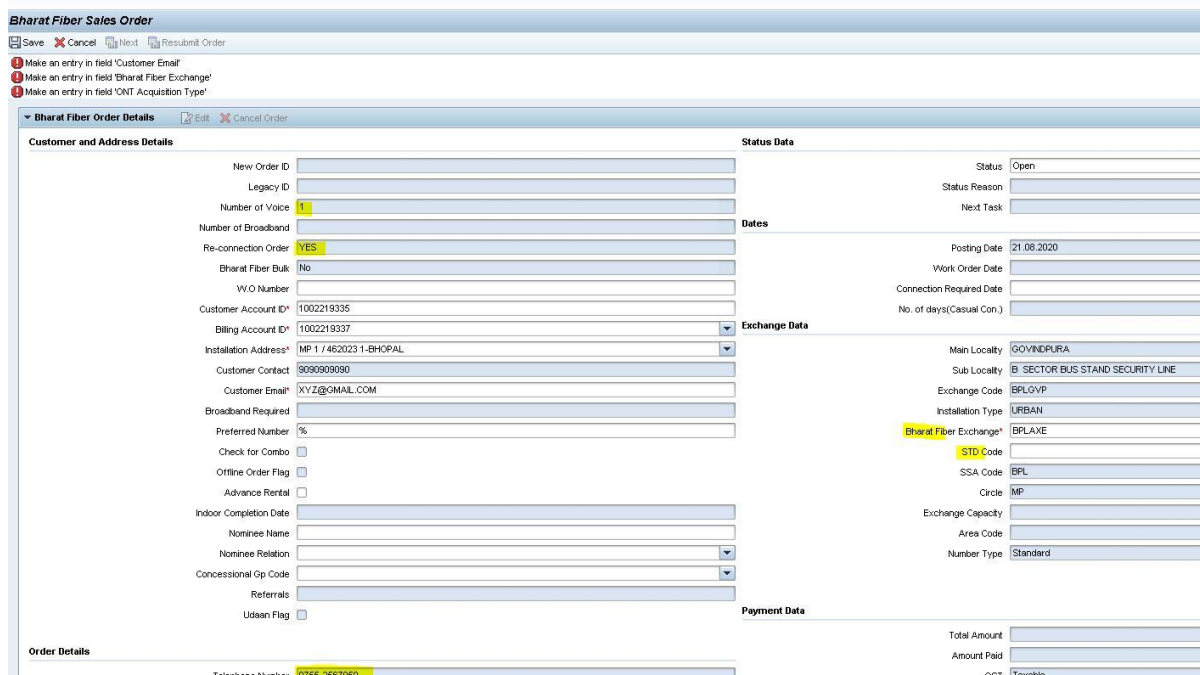
Service Order Details | Edit | Demand Note | Number Avail. Check | Validate | Cancel Order | **Bharat Fiber Conversion**

General Data	Processing Data
Service Order ID: 8000259542	New Telephone Number: 0755-2567059
Legacy ID:	Priority: Medium
Asset ID/Phone No.: 3133384 0755-2567059	Status: Open
Customer Account: 1002219335	Next Task:
Billing Account: 1002219337	Service line: BASIC PHONE SERVICE
Subscription Address: MP 123 / 462023 BPL-BHOPAL	Product line: WIRELINE
Contact Number:	Service type: LANDLINE
Service Category: Non-OYT General	Service Subtype: FIXED LANDLINE
Free Phone Type:	Usage Code: Residential
Connection Type: Permanent	Concessional Gp Code:
CH Pilot No.:	Documents To Be Collected: CAF
Centrex Group ID:	Internal Wiring Prov: <input checked="" type="checkbox"/>
Centrex Short Number:	Handset Required: <input checked="" type="checkbox"/>
Corporate Group ID:	Dates
CLUG Group ID:	Request Creation Date: 21.08.2020
CLUG Group:	Customer Requested Dat: 21.08.2020
Preferred Number: %	No of Days:
Employee Responsible: Mr. Samardeep Banyal	Revised End Date:
Udsan Flag: No	Franchise Details
Service Category	Sales Channel: Walk-In
Service Type: Landline	HRMS Number:
Order Type: Disconnect	Franchisee Code:
Order Sub-type: Bharat Fiber Conversion	DSA code:
Disconnection Reason: Conversion to Bharat Fiber	Indoor Completion Date:
Disconnection Sub Reason: CONVERSION TO BHARAT FIBER	ONT Franchisee:

Note: The number having the area code as H01, U01 and Z01 are only allowed to save disconnect due to conversion order. Otherwise for all other number a pop up will be displayed as

'Bharat Fibre conversion leads to indicator change, please create separate orders for LL disconnection and Bharat Fibre provisioning'

- On clicking the Bharat fiber conversion button user will be taken to the Bharat Fiber sales order provisioning screen. All the details will be taken from the ibase which was coming for the conversion.



- Basic details like CA, BA, and address are auto-populated on the screen. Also phone number on which disconnection is raised is also populated in the order and there is **no need for the separate number reservation** while creating the Bharat Fiber provisioning order. Also Reconnection flag will be auto set as Yes.

Note: Number of Voice and BB will also be auto set as 1 depending on following conditions:

If only LL customer wants to convert to Bharat Fiber then Number of voice will be set as 1 and BB will be 0.

If LL+BB customer wants to convert to Bharat Fiber then Number of voice will be set as 1 and BB will be 1 also.

- Bharat Fiber exchange will be user selected as per the STD code falling under the bharat fiber exchange and is editable as all LL exchanges are not configured for the Bharat fiber as well. User has to take care while selecting the Bharat fiber exchange and STD code to match the STD code with the number already populated.

Number of Voice	1	Next Task	
Number of Broadband		Posting Date	21.08.2020
Re-connection Order	YES	Work Order Date	
Bharat Fiber Bulk	No	Connection Required Date	
W/O Number		No. of days(Casual Con.)	
Customer Account ID	1002219335	Exchange Data	
Billing Account ID	1002219337	Main Locality	GOVINDPURA
Installation Address	MP 1 / 462023 1-BHOPAL	Sub Locality	B SECTOR BUS STAND SECURITY LINE
Customer Contact	9090909090	Exchange Code	BPLGVP
Customer Email	XYZ@GMAIL.COM	Installation Type	URBAN
Broadband Required		Bharat Fiber Exchange	BPLGVP
Preferred Number	%	STD Code	0755
Check for Combo	<input type="checkbox"/>	SSA Code	BPL
Offline Order Flag	<input type="checkbox"/>	Circle	MP
Advance Rental	<input type="checkbox"/>	Exchange Capacity	
Indoor Completion Date		Area Code	
Nominee Name		Number Type	Standard
Nominee Relation		Payment Data	
Concessional Op Code		Total Amount	
Referrals		Amount Paid	
Udson Flag	<input type="checkbox"/>	Taxable	
Telephone Number	0755-2567059		

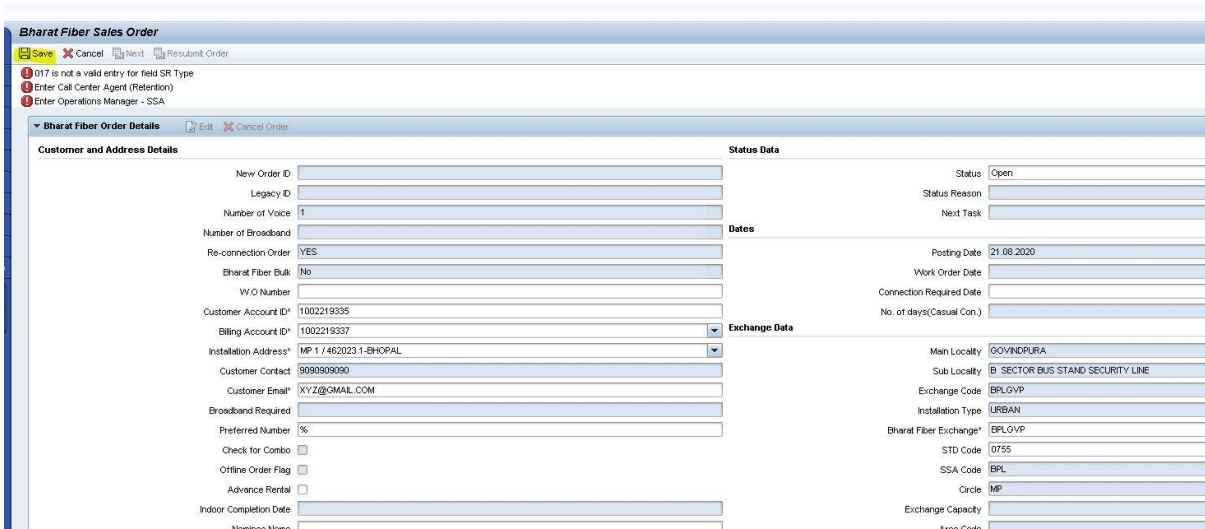
10. After selecting all the details, click on open dashboard, select the tariff plan and accessory and submit the dashboard.

The screenshot shows the 'Bharat Fiber Sales Order' form with the following sections:

- PLANS:** A table with columns: Check box, Product, Description, Asset Status, Status. The row for product D11413 is highlighted.
- FACILITIES:** A table with columns: Check box, Facility Id, Description, Asset Status, Status. The row for facility D367 is highlighted.
- ACCESSORIES:** A table with columns: Check box, Accessory Id, Description, Asset Status, Status. The row for accessory D700741 is highlighted.

Navigation buttons include 'Back', '1', '2', and 'Forward'. A note at the top of the form states: "Note: Please Click 'Submit' button before closing the Product Dashboard."

11. Click on the **save** button and save the order.



Bharat Fiber Sales Order

Save Cancel Next Resubmit Order

017 is not a valid entry for field SR Type
Enter Call Center Agent (Retention)
Enter Operations Manager - SSA

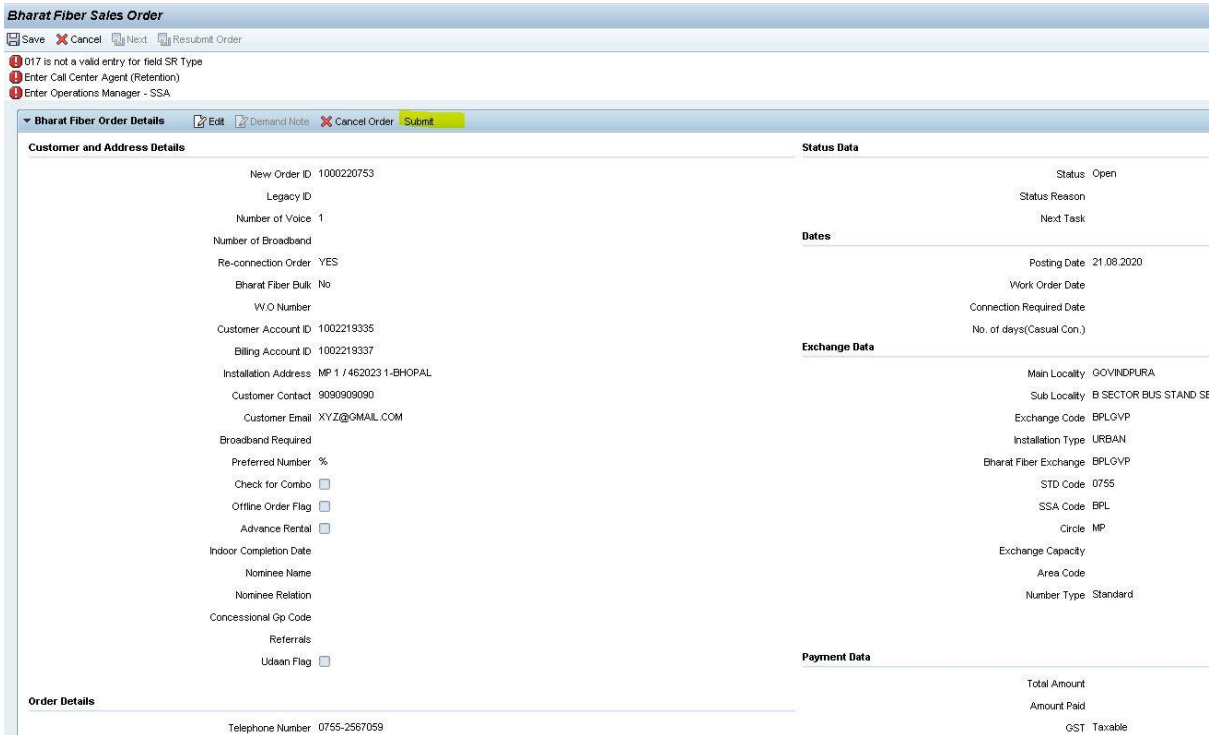
Bharat Fiber Order Details Edit Cancel Order

Customer and Address Details		Status Data
New Order ID		Status: Open
Legacy ID		Status Reason
Number of Voice	1	Next Task
Number of Broadband		
Re-connection Order	YES	Dates
Bharat Fiber Bulk	No	Posting Date: 21.08.2020
W/O Number		Work Order Date
Customer Account ID*	1002219335	Connection Required Date
Billing Account ID*	1002219337	No. of days(Casual Con.)
Installation Address*	MP 1 / 462023 1-BHOPAL	Exchange Data
Customer Contact	9090909090	Main Locality: GOVINDPURA
Customer Email*	XYZ@GMAIL.COM	Sub Locality: B SECTOR BUS STAND SECURITY LINE
Broadband Required		Exchange Code: BPLGVP
Preferred Number	%	Installation Type: URBAN
Check for Combo	<input type="checkbox"/>	Bharat Fiber Exchange*: BPLGVP
Offline Order Flag	<input type="checkbox"/>	STD Code: 0755
Advance Rental	<input type="checkbox"/>	SSA Code: BPL
Indoor Completion Date		Circle: MP
Nominee Name		Exchange Capacity
Nominee Relation		Area Code
Concessional Gp Code		Number Type: Standard
Referrals		
Udsan Flag	<input type="checkbox"/>	Payment Data
		Total Amount
		Amount Paid
		GST Taxable

If No of voice is 1 then A new **Submit** button will be enabled.

Otherwise if voice and bb both are 1 , 1 **Next** button will be enabled and user proceed for the Bharat Fiber BB screen there also most of the details are auto fetched and user only have to submit mandatory details (**no need for the number availability and user id validation , user id from LL+BB will be automatically taken to the Bharat Fiber BB screen**) and submit products and save the Bharat Fiber BB order . Once done the same **Submit** button mentioned above will be visible on the screen.

Here showing for the Voice 1 scenario:



Bharat Fiber Sales Order

Save Cancel Next Resubmit Order

017 is not a valid entry for field SR Type
Enter Call Center Agent (Retention)
Enter Operations Manager - SSA

Bharat Fiber Order Details Edit Demand Note Cancel Order **Submit**

Customer and Address Details		Status Data
New Order ID	1000220753	Status: Open
Legacy ID		Status Reason
Number of Voice	1	Next Task
Number of Broadband		
Re-connection Order	YES	Dates
Bharat Fiber Bulk	No	Posting Date: 21.08.2020
W/O Number		Work Order Date
Customer Account ID	1002219335	Connection Required Date
Billing Account ID	1002219337	No. of days(Casual Con.)
Installation Address	MP 1 / 462023 1-BHOPAL	Exchange Data
Customer Contact	9090909090	Main Locality: GOVINDPURA
Customer Email	XYZ@GMAIL.COM	Sub Locality: B SECTOR BUS STAND SE
Broadband Required		Exchange Code: BPLGVP
Preferred Number	%	Installation Type: URBAN
Check for Combo	<input type="checkbox"/>	Bharat Fiber Exchange: BPLGVP
Offline Order Flag	<input type="checkbox"/>	STD Code: 0755
Advance Rental	<input type="checkbox"/>	SSA Code: BPL
Indoor Completion Date		Circle: MP
Nominee Name		Exchange Capacity
Nominee Relation		Area Code
Concessional Gp Code		Number Type: Standard
Referrals		
Udsan Flag	<input type="checkbox"/>	Payment Data
		Total Amount
		Amount Paid
		GST Taxable

Order Details

Telephone Number: 0755-2567059

- Click on the submit button, the Bharat Fiber provisioning order status will be changed to **Conversion in progress** and the disconnection order due to conversion will automatically hit to the clarity system.

Save Cancel Next Resubmit Order

017 is not a valid entry for field SR Type
 Enter Call Center Agent (Retention)
 Enter Operations Manager - SSA

Bharat Fiber Order Details Edit Cancel Order

Customer and Address Details		Status Data	
New Order ID	1000220753	Status	Conversion In Progress
Legacy ID		Status Reason	
Number of Voice	1	Next Task	
Number of Broadband			
Re-connection Order	YES	Dates	
Bharat Fiber Bulk	No	Posting Date	21.08.2020
WO Number		Work Order Date	
Customer Account ID	1002219335	Connection Required Date	
Billing Account ID	1002219337	No. of days(Casual Con.)	
Installation Address	MP 1 / 462023 1-BHOPAL	Exchange Data	
Customer Contact	9090909090	Main Locality	GOVINDPURA
Customer Email	XYZ@GMAIL.COM	Sub Locality	B SECTOR BUS STAND SECURITY LINE
Broadband Required		Exchange Code	BPLGVP
Preferred Number	%	Installation Type	URBAN
Check for Combo	<input type="checkbox"/>	Bharat Fiber Exchange	BPLGVP
Offline Order Flag	<input type="checkbox"/>	STD Code	0755
		SSA Code	BPL

- Once disconnection order is at clarity, clarity end new task is inserted for the checking Bharat fiber feasibility.

Application Edit Contacts Inventory Provisioning Assurance Integration BSNL Custom Menu Help Window

Service Orders

Clarity

Record Count | 1

Service Order No	Service Id	Parent SO	Parent Service	Order Type	Priority	Speed	Service Type	Class	Completion Dt	Supervisor	Workgroup	Telephone No
11000575645	000114537			DELETE	O	3100	LANDLINE		09-AUG-20 17:00	BPLGVP_SO		0755-9500973

Cust Contact	Name	Cust Type	Cust Act No	CRM Order ID	Date created	Status	Status Date	Status Reason	Exchg Switch Code
ACS4	A B CD	RESIDENT	1002218986	8000259467	07-AUG-20 15:00	CLOSED	07-AUG-20 16:00		BPLGVPH01

View WO Cancel Service Order Test Results Attach and View File All Comments

Tasks Attributes Features Addresses Comments Costed Items Circuits Numbers Linked Addresses

Service Implementation Tasks

Timing	Taskname	Task Type	Status	Assigned Date	Proposed Start Dt	Proposed End Dt	Actual Start Dt	Actual End Dt	WO	Work Group	Employee	ID
46	BHARAT FIBRE FSE	WORKOR	COMPLET	07-AUG-20 15:27	07-AUG-20 17:27	08-AUG-20 10:57	07-AUG-20 15:27	07-AUG-20 16:00	1	BPLGVP_OD	CLARITY	18469
48	FEASIBILITY_UPDA	SYSTEM	COMPLET	07-AUG-20 16:00	08-AUG-20 10:57	08-AUG-20 12:57	07-AUG-20 16:00	07-AUG-20 16:00	0	SYSTEM	CLARITY	18469
130	NGN_DEACT	MANUAL	COMPLET	07-AUG-20 16:00	08-AUG-20 12:57	08-AUG-20 14:57	07-AUG-20 16:00	07-AUG-20 16:00	0	SYSTEM	CLARITY	18469
190	MDF	WORKOR	COMPLET	07-AUG-20 16:00	09-AUG-20 01:57	09-AUG-20 03:57	07-AUG-20 16:00	07-AUG-20 16:00	1	BPLGVP_MD	CLARITY	18469
230	OUTDOOR	WORKOR	COMPLET	07-AUG-20 16:00	09-AUG-20 05:57	09-AUG-20 07:57	07-AUG-20 16:00	07-AUG-20 16:00	1	BPLGVP44444	CLARITY	18469
270	FINAL_TESTING	MANUAL	COMPLET	07-AUG-20 16:00	09-AUG-20 09:57	09-AUG-20 11:57	07-AUG-20 16:00	07-AUG-20 16:00	0	BPLGVP_FT	CLARITY	18469

Service Implementation Task Comments

Timing	Created By	Text
07-AUG-20 16:02:32	FEASIBILITY	BHARAT FIBRE FEASIBLE
07-AUG-20 15:27:34	CLARITY	Service Sub Type : LANDLINE, Order Sub Type : Bharat Fiber Conversion

Navigator View Comments Reset Error Task View/Update WO Log To Waiters

If feasibility is No, the disconnection order is halted and order will be sent to CO for further action as per existing clarity halt process. CO can Resume or Waitlist order and then cancel the halted disconnection order.

If feasibility is Yes, the disconnection order will be proceeded as usual. Old ibase will become inactive.

14. On successful order completion for disconnect order , Bharat Fiber provisioning order/Orders will hit to clarity system and will be completed in the system.

Search: Installed Bases

Search Criteria

Search For: Header Using Header Data

Telephone Number (STD-TelNo. Formal) is 0755-9500945

Maximum Number of Results: 5

Search Clear Save Search As Save

Result List: 2 Installed Bases Found

Asset ID	Asset Description	Phone Number	Asset Category	Created On	Changed On	Status	Status	Reason	Service Type
3129034	0755-9500945	0755-9500945	Asset Id, Telephone number	05.09.2019 12:43:14	05.09.2019 12:43:14	Created	Inactive		LANDLINE
3136233	0755-9500945	0755-9500945	Asset Id, Telephone number	07.08.2020 17:04:05	07.08.2020 17:04:05	Created	Active		BHARAT FIBER VOICE

2.2 Out of Scope/ Notes

Any issues which are arising due the wrong data present at production for migration cases or Area code not updated correctly in CRM end.

Also the Deposit and activation waiver schemes in case of Bharat Fiber Voice+BB as not attached as per current design as the deposit are to be handled at billing end as LL deposit will already be lying in billing system which needs to be carried forwarded and adjusted in billing system for the Bharat fiber service.



ANNEXURE-III.A

TIP ONT CONFIGURATION FOR IMS VOIP PROVISIONING.



Gateway Name: SY-GPON-1110-WDONT Logout

Status	Network	Security	Application	Management	Diagnose	Help
--------	---------	----------	-------------	------------	----------	------

Internet Binding LAN IP Address WLAN Remote LOID Configuration QoS Time Router

WAN Configuration

Connection Name: 2_VOICE_R_VID_18

Mode: Route

IP Protocol Mode: Ipv4

DHCP Get an address from ISP

Static Get a static IP address from ISP

PPPoE Select this when using PPPoE

Enable Vlan :

Vlan ID : 1849

802.1p : (null)

MTU : 1500

Request DNS: Enable

Disable

Primary DNS:

Secondary DNS:

Service Mode: VOICE

Turn off LAN DHCP :

Save/Apply Del

1. DHCP has to be selected
2. Vlan ID has to be given 1849
3. Request DNS has to be Enabled



Gateway Name: SY-GPON-1

Application	Status	Network	Security	Application	Management	Diagno
	Advances NAT	UPNP	VOIP	IGMP	MLD	Daily Application

VOIP Configuration

Advanced VOIP Configuration

Server Type: Soft Switch SIP

Primary SIP Register Addr

SIP Register Addr: kl.ftth.utims.bsnl.in

Port: 5060

Secondary SIP Register Addr

SIP Register Addr: kl.ftth.utims.bsnl.in

Port: 5060

Primary SIP Proxy

Address: kl.ftth.utims.bsnl.in

Subscribe:

PORT: 5060

Enable Outbound Proxy:

Outbound Proxy Addr: kl.ftth.utims.bsnl.in

Outbound Proxy Port: 5060

SIP Domain: kl.ftth.utims.bsnl.in

Reg Expire (sec): 3600

Enable Session timer:

Session Expire (sec): 1800

Secondary SIP Proxy

Enable Secondary SIP:

Subscribe:

Address: kl.ftth.utims.bsnl.in

PORT: 5060

Enable Outbound Proxy:

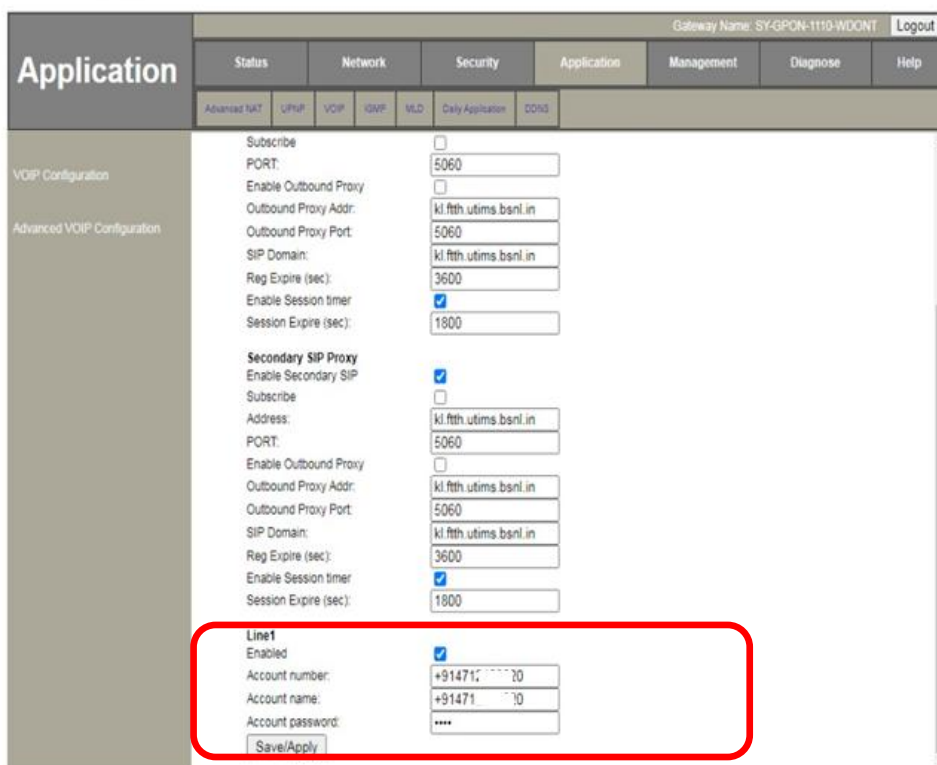
Outbound Proxy Addr: kl.ftth.utims.bsnl.in

Outbound Proxy Port: 5060

SIP Domain: kl.ftth.utims.bsnl.in

4. Domain name has to be given as shown in the fig above

NOTE:- Domain name has to be assigned as per **CORE**(Huawei or UT Core) and as per **CIRCLE** as mentioned in **Annexure- I**.



Gateway Name: SY-GPON-1110-WOONT Logout

Application

Status Network Security Application Management Diagnose Help

Advanced NAT UPnP VOIP QoS MLD DASH Application DNS

VOIP Configuration

Advanced VOIP Configuration

Subscribe

PORT: 5060

Enable Outbound Proxy

Outbound Proxy Addr: ki.ftth.utims.bsni.in

Outbound Proxy Port: 5060

SIP Domain: ki.ftth.utims.bsni.in

Reg Expire (sec): 3600

Enable Session timer

Session Expire (sec): 1800

Secondary SIP Proxy

Enable Secondary SIP

Subscribe

Address: ki.ftth.utims.bsni.in

PORT: 5060

Enable Outbound Proxy

Outbound Proxy Addr: ki.ftth.utims.bsni.in

Outbound Proxy Port: 5060

SIP Domain: ki.ftth.utims.bsni.in

Reg Expire (sec): 3600

Enable Session timer

Session Expire (sec): 1800

Line1

Enabled

Account number: +914711****20

Account name: +91471****20

Account password: ****

Save/Apply

5. Username and password will be given as shown above and click on Save/Apply.

NOTE :- In UT & Huawei IMS CORE, user name should start from +91** unlike in CDOT Voip core, where it starts from 91******



Gateway Name: SY-GPON-1110-WDONT

Status

Status	Network	Security	Application	Management	Diagnose	Help
--------	---------	----------	-------------	------------	----------	------

Device Information | WAN Connection Info | User Information | VOIP Information | Remote Management Status

IPv4 Connection Information

IPv6 Connection Information

EPON Information

WAN Info

Interface	VLAN ID	Protocol	IGMP	Status	IP Address	Netmask	MAC Address
1_INTERNET_R_VID_167	167	PPPoE	Enable	up	59.94.130.207	255.255.255.255	38:94:e0:f3:0d:c2
2_VOICE_R_VID_1849	1849	IPoE	Disable	up	10.107.8.251	255.255.255.0	38:94:e0:f3:0d:c5

NetWork Info

Service Interface	Default Gateway	Primary DNS	Secondary DNS
1_INTERNET_R_VID_167	59.94.128.1	61.1.1.1	61.0.3.3
2_VOICE_R_VID_1849	10.107.8.1	172.30.249.11	

6. Here IP assigned , Gateway, Subnet Mask and DNS can be checked and verified.

NOTE:- For IMS CORE (UT & Huawei) DNS should be 172.30.249.11



Gateway Name: SY-GPON-1110-WDONT [Logout](#)

Status	Network	Security	Application	Management	Diagnose	Help
Device Information	WAN Connection Info	User Information	VOIP Information	Remote Management Status		

VOIP Information

Service State	Registered
Phone Number	+914712499620

7. VoIP Registration status can be checked here.

NOTE:- If Configuration is correct and VoIP IP, Subnet Mask, Gateway and DNS are assigned correctly VoIP status should be **REGISTERED**.



ANNEXURE-III.B

BSNL ONT CONFIGURATION FOR IMS VOIP PROVISIONING.

To configure VOIP in ONT two steps are required.

- IP HOST
- TEL 1 port

1. IP HOST configuration

In IP Host configuration, select the following fields as shown in FIG 1.

- Profile Group : UTCORE_IPHOST
- S-VLANID : 1849
- DHCP : Enable DHCP

Add and Activate IPHOST Service

AOLT Node	KA-BLR-BGE...	Card Number	5
Port Number	2A	ONT	6
ONT Pack	IPHOST	ONT Port	IPHost 2

Service Type	IPHOST	Service Number	1
Service Name		Service Id	2-1-5-2A/6-IPHOST-IPHOST2-1
Flow Name		Profile Group	UTCORE_IPHOST
Customer Account		Browse	

VLAN Configuration

S-VLAN ID	1849	Browse	C-VLAN ID	
-----------	------	--------	-----------	--

IP Configuration

<input checked="" type="checkbox"/> DHCP	IP Address	. . .
Mask	Gateway	. . .
Primary DNS	Secondary DNS	. . .

Activate Service

Service Template

Service No.	Service Id	Service Name	Service Type	Service Flow Name	S-VLAN ID	C-VLAN ID	Q-VLAN ID
1	2-1-4-1A/12-IPH...	voip	IPHOST	voip	1820		

Save Parameters Populate Parameters

OK Cancel

FIG 1



2. TEL1 Port Configuration

Fill the following fields as shown in the FIG 2.

- 1) Profile Group : UTCore_Voip_DOM2
- 2) Country Code Phone Number : 91-+9147124xxx20(The number should start with +91***)
- 3) SIP Display Name : 9147124xxx20
- 4) User Name :+ 9147124xxx20
- 5) Password :*****
- 6) Realm : kl.ftth.utims.bsnl.in ##
- 7) Protocol Profile :120 UTCore_SIP_DOM2
- 8) Protocol UNI Profile : 100 UTCore_UNI

NOTE :- In UT & Huawei IMS CORE, user name should start from +91** unlike in CDOT Voip core, where it starts from 91******

##NOTE: - Domain name has to be assigned as per CORE (Huawei or UT Core) and as per CIRCLE as mentioned in **Annexure- I**.

The screenshot shows the 'Add and Activate VoIP Service' configuration window. The fields are organized as follows:

- Service Type:** VoIP
- Service Number:** 1
- Service Id:** 2-1-5-2A/6-TEL-TEL2...
- Profile Group:** UTCORE_VOIP-DOM2
- Service Name:** voip
- Flow Name:** voip
- IP Host:** IPHOST1
- Customer Account:** [Empty]
- VLAN Configuration:** S-VLAN ID, C-VLAN ID
- TEL Configuration:** Country Code-Phone Number: 91-+9147124***0, SIP Display Name: +9147124*.20
- Authentication:** Authentication Type: MD5, Realm: kl.ftth.utims.bsnl.in
- User Name:** +9147124...0, Password: ****
- IP Configuration:** DHCP, SIP Agent IP, Mask, Gateway, Primary DNS, Secondary DNS
- Protocol Configuration:** Protocol Type: SIP, Protocol Profile: 125, Protocol UNI Profile: 100
- Service Template:** Table with columns: Service Type, Service Number, Service Id, Profile Group, Service Name, Flow Name, IP Host, S-VLAN ID, C-VLAN ID, Country Code-Phone Number.

FIG 2



3. Check the UNI configuration:

Voice Server State has to show Registered as shown in FIG 3.

The screenshot shows a window titled "UNI Configuration" with a close button (X) in the top right corner. The window contains a table of configuration parameters. The "Voice Server State" field is highlighted with a red rectangular box and contains the text "registered".

AOLT Node	KA-BLR-BGE...	Card Number	5
Port Number	2A	ONT	6
ONT Pack	TEL	ONT Port	TEL1
Port Name	<input type="text" value=""/>		
Admin State	UnLocked <input type="button" value="v"/>		
Operational Status	Up		
Hook State	On Hook		
Codec	pcmu		
Voice Server State	registered		
Port Session Type	none		
Call1PcktPeriod	<input type="text" value="0"/>		
Call2PcktPeriod	<input type="text" value="0"/>		
Call1DestAddr	<input type="text" value=""/>		
Call2DestAddr	<input type="text" value=""/>		
TransPath	Full Time On Hook		
VoipTXGain	<input type="text" value="0"/>		
VoipRXGain	<input type="text" value="0"/>		
VoipPotsHoldOverTime	<input type="text" value="0"/>		

At the bottom of the window, there are three buttons: "Apply Changes", "Refresh", and "Cancel".

FIG 3



4. IP & DNS IP Confirmation

To find the allotted ip details, Right click on IPHOST11 port and select View UNI Configuration and check the following details as shown in the FIG 4.

IP Address : 10.107.8.253
Subnet Mask : 255.255.255.0
Gateway : 10.107.8.1
Primary DNS : 172.30.249.11
Secondary DNS : 172.30.249.33

AOLT Node	KA-BLR-BGE...	Card Number	5
Port Number	2A	ONT	6
ONT Pack	IPHOST	ONT Port	IPHost 1

Port Name	<input type="text"/>
Mac Limit	<input type="text" value="2"/>
Address Type	<input type="text" value="IPv4"/>
Operational Status	<input type="text" value="Up"/>
IP Assignment Type	<input type="text" value="DHCP"/>
IP Address	<input type="text" value="10.107.8.253"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
Gateway	<input type="text" value="10.107.8.1"/>
Primary DNS	<input type="text" value="172.30.249.11"/>
Secondary DNS	<input type="text" value="0.0.0.0"/>

FIG 4

Annexure-IV. VOIP Troubleshooting

