# Annexure-I

# MIGRATION OF P2.2

# TO MULTIPLAY

## Document Prepared By:

Broadband Networks Circle  migration team

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# Contents:

**(1)**        **TYPE A:**      FE port DSLAM may be connected through FE media converter (Optical to Ethernet Electrical) on Ethernet Electrical Port of Rural OCLAN.

*Note: FE port DSLAM may also be connected to GE port by changing FE ESMA card by GE ESMA card and the configuration will be as per GE port DSLAM.*

**(2)**        **TYPE B:**      GE port DSLAM may be connected to any GE SM port of T-2 or T-1 of Multiplay network.
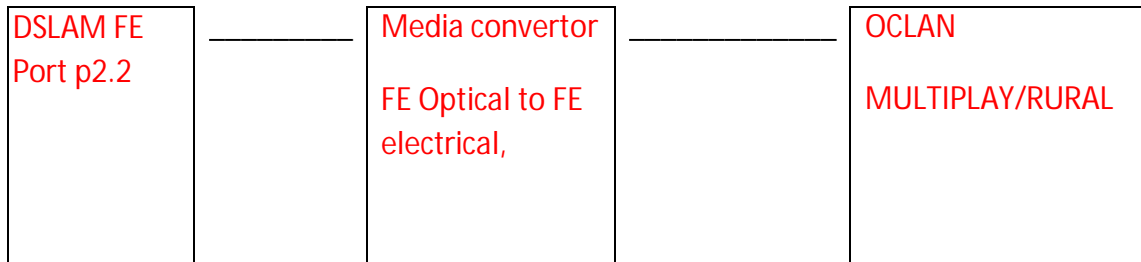
**(3)**        **TYPE C:**      P2.2 Tier 2 GE port may be connected to GE port RPR (MP) directly.

**(4)**        **Flowchart for the Migration procedure.**

**TYPE A:**

FE port DSLAM may be connected through FE media converter.

(Optical to Ethernet-Electrical) on Ethernet Electric Port of Rural OCLAN.

| DSLAM FE Port p2.2 | _____ | Media convertor<br><br>FE Optical to FE electrical, | _____ | OCLAN<br><br>MULTIPLAY/RURAL |
|---|---|---|---|---|

1. DSLAM connected to OCLAN through FE media converter (FE optical to FE Electrical)
2. First four port of OCLAN can be used as GE OR FE.
3. Configuration of OCLAN:
   COMAND to convert the GE port OCLAN (first four ports) to electrical port:
   I. Interface gei_ port no (for first four ports in OCLAN).

   II. Hybrid attribute copper (for use as electrical port by the use of media Converter)

      Or Hybrid attribute fiber (use as optical port)

   COMAND to pass the Outer VLAN of DSLAM from OCLAN:
   III. Switchport mode hybrid.

   IV. Switchport hybrid VLAN (DSLAM outer VLAN number) untag.

4. Configuration of DSLAM(PUN-DLM-MKR-01 DSLAM is taken as example)
   I. Create the Management VLAN and IP in the vlan interface
   PUN-DLM-MKR-01(config) # vlan 127

   PUN-DLM-MKR-01(config-vlan127)#exit

   PUN-DLM-MKR-01(config) #interface vlan-interface 127

   PUN-DLM-MKR-01(config-if-Vlan-interface127)#ip address 10.240.a.b  255.255.255.0

   PUN-DLM-MKR-01(config-if-Vlan-interface127)#exit

   PUN-DLM-MKR-01(config) #ip route 0.0.0.0 0.0.0.0 10.240.a.1

   II. Configure the Physical interface  as below:

   PUN-DLM-MKR-01(config))#interface gigabitEthernet 7/1/0

// GE only in 480 ports DSLAM for others FE port

//command for that -interface Ethernet 7/1/0

PUN-DLM-MKR-01(config-if-GigabitEthernet7/1/0)#speed Auto

PUN-DLM-MKR-01(config-if-GigabitEthernet7/1/0)#duplex full

PUN-DLM-MKR-01(config-if-GigabitEthernet7/1/0)#switchport mode  trunk

PUN-DLM-MKR-01(config-if-GigabitEthernet7/1/0)#switchport trunk allowed vlan 127

PUN-DLM-MKR-01(config-if-GigabitEthernet7/1/0)#switchport trunk native vlan 127

PUN-DLM-MKR-01(config-if-GigabitEthernet7/1/0)#exit

5.  BNG Configuration (by MULTIPLAY BANGALORE NOC):The configuration change to be done in BNG for connecting Huawei DSLAM to multiplay network is as below:

Configuration for outer VLAN of DSLAM(Lets say here 3652)

#config

#port Ethernet 1/1

#dot1q pvc 3652 encapsulation 1qtunnel

#description *** connectivity  to HUAWEI 120 Port mgmt ***

#bind interface DSLAM-HUAWEI-OCCITY mgmt

#ip host 10.240.a.b

#dot1q pvc on-demand 3652:128 through 247 profile qos-map encapsulation pppoe

#bind authentication chap maximum 1

#end

6.  DSLAM is to be added into P2.2 EMS by SDE (P2.2) at NOC Bangalore.

7.  The database from P2.2 DSLAM (user id) will be forwarded by field for bulk creation in Multiplay LDAP to SDE (P3) . List of all user name of  Huawei are required to be send to  SDE(P3)/DGM P3(D/O) with copy to migration coordination team.

8.   EMS ACCESS for migrated DSLAM/T2 at P2.2 will be provided by SDE P2.2.

9.  CDR for the billing period will consist of P2.2 & P3 both.

**TYPE B:**

DSLAM of P2.2 with GE port connectivity to T2/T1 on GE port MP:

| | | |
|---|---|---|
| DSLAM of P2.2 with GE port<br><br>speed AUTO | _____ | MP<br><br>T2/T1/OCLAN on GE port |

1. Configuration of DSLAM(PUN-DLM-MKR-01 DSLAM is taken as example)
   I. Create the Management VLAN and IP(as provided by the NOC lets say here 127) in the vlan interface

      PUN-DLM-MKR-01(config) # vlan 127

      PUN-DLM-MKR-01(config-vlan127)#exit

      PUN-DLM-MKR-01(config) #interface vlan-interface 127

      PUN-DLM-MKR-01(config-if-Vlan-interface127)#ip address 10.240.a.b  255.255.255.0

      PUN-DLM-MKR-01(config-if-Vlan-interface127)#exit

      PUN-DLM-MKR-01(config) #ip route 0.0.0.0 0.0.0.0 10.240.a.1

   II. Configure the Physical interface  as below:

      PUN-DLM-MKR-01(config))#interface gigabitEthernet 7/1/0

      // GE only in 480 ports DSLAM for others FE port

      //command for that -interface Ethernet 7/1/0

      PUN-DLM-MKR-01(config-if-GigabitEthernet7/1/0)#speed Auto

      PUN-DLM-MKR-01(config-if-GigabitEthernet7/1/0)#duplex full

      PUN-DLM-MKR-01(config-if-GigabitEthernet7/1/0)#switchport mode  trunk

      PUN-DLM-MKR-01(config-if-GigabitEthernet7/1/0)#switchport trunk allowed vlan 127

      PUN-DLM-MKR-01(config-if-GigabitEthernet7/1/0)#switchport trunk native vlan 127

      PUN-DLM-MKR-01(config-if-GigabitEthernet7/1/0)#exit

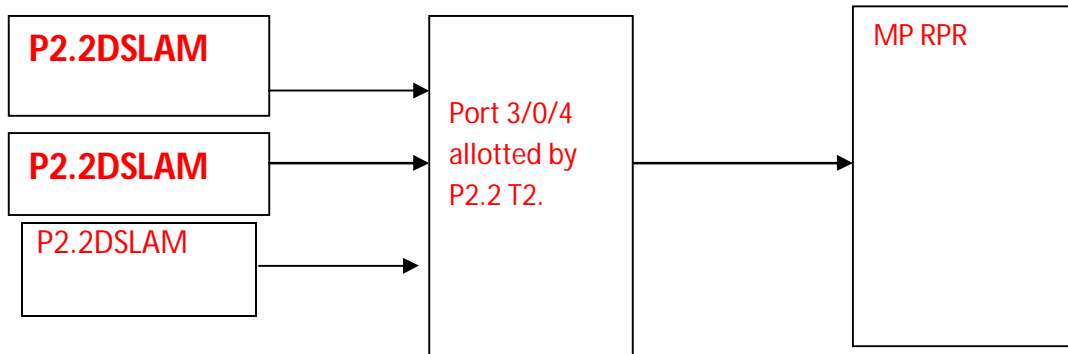2. BNG Configuration (by MULTIPLAY BANGALORE NOC):

The configuration change to be done in BNG for connecting Huawei DSLAM to multiplay network is as below:

```
#config

#port Ethernet 1/1

#dot1q pvc 3652 encapsulation 1qtunnel

#description *** connectiivity to HUAWEI 120 Port mgmt ***

#bind interface DSLAM-HUAWEI-OCCITY mgmt

#ip host 10.240.a.b

#dot1q pvc on-demand 3652:128 through 247 profile qos-map encapsulation pppoe

#bind authentication chap maximum 1

#end
```

3. DSLAM is to be added into P2.2 EMS by SDE (P2.2) at NOC Bangalore.
4. The database from P2.2 DSLAM (user id) will be forwarded by field for bulk creation in Multiplay LDAP to SDE (P3) . List of all user name of Huawei are required and send to SDE (P3)/DGM P3 (D/O).
5.  EMS ACCESS for migrated DSLAM/T2 at P2.2 will be provided by SDE P2.2.

6. CDR for the billing period will consist of P2.2 and P3 both & needs to be taken care of.

**TYPE C:**

GE port P2.2 Tier 2 to GE port (MP) directly.

```
┌──────────────┐
│  P2.2DSLAM   │──────────┐         ┌──────────────┐       ┌──────────────┐
└──────────────┘          │         │ Port 3/0/4   │       │ MP RPR       │
                          ├────────▶│ allotted by  │──────▶│              │
┌──────────────┐          │         │ P2.2 T2.     │       │              │
│  P2.2DSLAM   │──────────┤         │              │       │              │
└──────────────┘          │         │              │       │              │
                          │         │              │       │              │
┌──────────────┐          │         │              │       │              │
│ P2.2DSLAM    │──────────┘         │              │       │              │
└──────────────┘                    └──────────────┘       └──────────────┘
```

1. IP and outer VLAN and management VLAN is allotted to DSLAM and P2.2 T2 by MP NOC. For T2 P2.2 connectivity P2.2 T2 is treated as OCLAN in MP. IP is allotted as OCLAN IP.

2. Configuration at P2.2 Tier-2 for the creation of IP and outer VLAN and allowing at Uplink:
    I. In P2.2 T2 Vlan (Lets say allotted Vlan is 25) was created as:
        ] interface Vlan-interface 25

        -vlan-Int25] IP address 10.248.a.b  255.255.255.252

        -vlan-int25] undo shut

        ]quit

    II. For configuring at Uplink port of T2 Huawei to allow the allotted IP and VLAN of T2:

        ] interface GE 3/0/3

        -int ge 3/0/3] port link-type trunk

        -int ge 3/0/3] port trunk permit vlan 25

        -int ge 3/0/3] port trunk pvid vlan 25

        -int ge 3/0/3] undo shu

        ] qu


    III. For route definition:

        ] ip route-static 0.0.0.0 0.0.0.0 **10.248.a.(b+1)**

    ➢  Test the connectivity by pinging IP  **10.248.a.(b+1)**

3. Configuration at P2.2 T2 for outer VLAN(Lets say allotted Vlan is 3602) of DSLAM in MP:
   I.     For Vlan 3602 creation

        ] interface Vlan-interface 3602

        -vlan-int3602] undo shut

        ]qu

   II.    For permit DSLAM Vlan 3602 to uplink port towards RPR.

        ] interface GE 3/0/3

        -int-ge-3/0/3] port trunk permit vlan 3602

        ]qu

   III.   For DSLAM interface

        ] interface GE 3/0/4

        -int-ge-3/0/4] port access vlan 3602

        -int-ge-3/0/4] vlan-vpn enable

        -int-ge-3/0/4] undo shu

        ]qu

4. All connected DSLAM are configured for new MP IP and management VLAN as described for Type A & Type B by field unit.

5. The database from P2.2 DSLAM (user id) will be forwarded by field for bulk creation in Multiplay LDAP to SDE (P3) with copy to migration coordination team..

6. EMS ACCESS for migrated DSLAM/T2 at P2.2 will be provided by SDE P2.2.

7. CDR for the billing period will consist of P2.2 and P3 Both

PUN-DLM-MKR-01(config) #show adsl port state all

// check port status of all boards

// If ports are deactivated then activate them by going inside the adsl board

PUN-DLM-MKR-01(config) # board-adsl 0

PUN-DLM-MKR-01(config-board-adsl0# activate all 2

PUN-DLM-MKR-01(config) # ping 10.240.a.1

## Important points for Migration:

2. The user ID dataone.in will continue till the expiry of AMC of P2.2. The Email ID in P2.2 will not be deleted at present .The email id with same user ID as in P2.2 may be created in Multiplay in blocked status so as to reserve in multiplay.

3. Initially only Willing customers will be migrated to same email id with changed domain i.e bsnl.in. The advantages like bigger box size may be mentioned while pursuing the customer.

## Flowchart for the Migration procedure:

| S. no. | WORK Carried out | Working officer |
|---|---|---|
| 1. | DSLAM/T2/T1 of P2.2 which are required to be shifted may be intimated to migration coordination team and SDE (P2.2) <sumah@bsnl.co.in>,with old P2.2 IP and VLAN and new connectivity detail address of MP OCLAN/RPR and type of port available | NODE INCHARG with the approval SSA Head. <bbnoc_mp@bsnl.in>, <sumah@bsnl.co.in> bbnoida@bsnl.co.in |
| 2. | Verification and testing will be done by MP NOC and P2.2 for (1)Feasibility and deciding of implementation. (2) Allot the IP and VLAN for DSLAM/T2/ to be shifted. | MPNOC Bangalore." <bbnoc_mp@bsnl.in>, bbnoida@bsnl.co.in |
| 3 | IP and outer VLAN and management VLAN will be allotted by JTO (BBNW)/SDE (BBNW) NOC Bangalore. Configuration will be done in MP NOC. | MPNOC <bbnoc_mp@bsnl.in>, |
| 4 | P2.2 NOC will generate the list of customer user id ,password , telephone number and send to NODE in charge as well as SDE (P3) brahmap77@gmail.com for back end creation and Migration COORDINATION TEAM.This is possible only for port binded customers.hence Node incharges to ensure portbinding of all customers in the proposed DSLAM. | P2.2 sumah@bsnl.co.in Node incharge |
| 5 | After verification of the file by node incharge , the list is to be sent BACK TO SDEP2.2 and migration coordination team | NODE INCHARGE |
| 6 | SDEP2.2 will send the file of list to SDEP3 for backend creation in LDAP with migration coordination team | P2.2 NOC |
| 7 | SDEP3 will create the customer send the list to 1.Concerned CDR project.2. SDEP2.2.(please note that only CDR migrated SSA's are targeted ) 3.NODE Incharge( if any user id already available in P3 .pl issue the shifting advice note from p2.2 to p3 with different user id ) | SDE P3 brahmap77@gmail.com |

Sub-table inside Row 1:

| Name and IP address& VLAN of DSLAM p2.2 | Name and IP address of OCLAN/RPR/T1/T2 of MP connectivity | Type of port number of port are to be connected | Number customer | |
|---|---|---|---|---|
| | | | | |

| 8 | SSA should take care of change of user id, already present in p3.NODE incharge issue the shifting advice note from p2.2 to p3 and inform to customer. | Node incharge of SSA |
|---|---|---|
| 9 | NOIDA BB NOC will issue the bulk mail to customer for informing the new mail address on old mail address data one.in. Node incharge will inform the email ids of the customers in migration to Migration team | NOIDA NOC<br><br>Node incharges. |
| 10 | Delete from look up table and already created in bsnl.in after 3months. | Node incharge |
| 11 | NODE incharge will delete the connection from P2.2 | Node incharge of SSA |

Note: Node incharge will contact migration team for all migration related activities.