**BCK-PA- June 2020 Release**

*Process*

1. I cloned the git repository in my local computer.
2. Initially it was in a git perspective and then we changed into the java perspective.
3. As this was a Gradle project. After every change in the project we had to do refresh and refresh Gradle project. Because every change in the project reflects only after that.
4. We were able to find the problems from the Problems, Console and Gradle Tasks section in the eclipse.
5. Then we build the project using component\_build\_local
6. component\_build is for building at the global level

*Errors Faced*

1. Whenever we cloned it there was a folder missing in the library folder named “fw” containing libraries like Mockito
2. It was because due to vpn it was not connect to the internet and it could not download it. That was resolved by disconnecting the vpn.
3. Error was still present even after refreshing but as soon as we restart the eclipse it was gone and bck-pa was finally set up.

**BCK-Service- June 2020 Release**

*Process*

1. Did same for BCK- Service
2. And then build it locally on my computer

*Errors Faced*

1. There was no error as such in bck-service and it got build in the first time.
2. Here also we had to restart the eclipse in order to set up the bck-service and remove the error.

**Overview**

1. By setting up the project I observed a few things that these projects consist of main code of LPP Module which have Port Assignment (PA) and Services between ports that are done in AT&T.
2. It has all the CRUD Operations. It has the DAO, UTIL, SERVICE, COMPONENT.
3. Got to know the rules of working in these projects like
4. Once when we pull the project then we must build it locally with our changes rather than directly building globally.
5. If there is any failure while building locally, we should not build it as it may block the whole system and others also cannot access the code and that might get into serious trouble.
6. Due to similar workspace eclipse might get confused between the metadata in different projects.
7. In order to solve this problem, we have to have projects in different folder.

Information about the java files and the tables

1. DirectSessions.java

* It contains method which gives different responses.
* In all the methods session is checked whether it is already present or not.
* All these method checks whether customer is logged in or not.
* CRUD methods are present in this file.
* It contains methods for customers, Sap, Group, Port, VPN, Router and many more.
* It also has methods for Ethernet Connection.

1. InfraAsgmtAgentImpl.java

* It contains method which gives different responses.
* In all the methods session is checked whether it is already present or not.
* All these method checks whether customer is logged in or not.
* CRUD methods are present in this file.
* It contains methods for customers, Sap, Group, Port, VPN, Router and many more.
* It also has methods for Ethernet Connection.

3) InfraAsgmtHomeImpl.JAVA

* To Retrieve/ Assign WAN IP Address.
* It contains many Boolean methods which are used for validation.
* It validates the count of LAG.
* It creates the SAP object and set the values in it.
* It also has methods which checks for the presence in cloud PE.
* In contains method which initialize the resource rehomed.

4) InfraAsgmtUtilImpl.java

* It has the database connectivity and queries getting executed.
* It gives the component and network details.
* It checks for the speed of the network as well.
* It gets the access for the lag.
* It allocates it to the specified lag and which is the best and available.
* It has all CRUD operations on lag and router.

5) EndpointDb.java

* It has CRUD operations for lag, trunk and infra port assignment.
* It has methods which create endpoints in the network.
* LRO Implementation is done in this.
* Addition of Lag group is done here.

Tables

1. ip\_port\_asgmt
   * As the name suggest it is the table to hold the details of ip port assignment.
   * It has the primary key as IP\_PORT\_ASGMT\_ID.
   * It is connected ip\_serv\_acc\_pt through SERV\_ACC\_PT\_ID.
   * It is connected to ip\_transport through IP\_TRANSPORT\_ID.
   * It is connected to serial\_ip\_addr through WAN\_ADDR\_ID, CR\_ADDR\_ID, AR\_ADDR\_ID.
2. ip\_assigned\_endpt
   * This table records the physical and logical data needed to uniquely define a port assignments termination. It contains the end points of the network.
   * It is connected to lag through LAG\_SEQ.
   * ENDPOINT\_ID is the primary key in this table.
3. ip\_serv\_acc\_pt
   * It contains the logical points between customer’s connection and at&t backbone connection.
   * SERV\_ACC\_PT\_ID is the primary key in this table.
4. ip\_transport
   * This table is used to group the various IP Transport Segments (Cust. Access Circuit, C9000-C500 PVC, C500-AR PVC, FR PVC, ATM PVC) that are associated with an IP Port Assignment assigned to a Customer.
   * IP\_TRANSPORT\_ID is the Primary key in the table.
5. lag
   * The lag table records the lagid associated with the equip\_id.
   * LAG\_SEQ is the primary key of the table.
6. lag\_port\_mapping
   * The lag\_port\_mapping table records the lagid associated with the comp\_ids.
   * It is related with component through COMP\_ID.
   * There is no primary key in this table.
7. serial\_ip\_addr
   * This table holds serial\_ip\_link address data for IpDepot.
   * SERIAL\_IP\_ADDR\_ID is the primary key of table.
8. instar\_order
   * This table contains a InStar order record for each port assignment id created.
   * INSTAR\_ORDER\_ID is the primary key of table.
9. configlets
   * CONF\_ID is the primary key of table.
   * It generally have the status of validation and activity generally.
10. circuit
    * This table stores the C9000-C500-AR circuit information.
    * CKT\_ID is the primary key of table.
    * A\_PORT\_ASGMT\_ID, Z\_PORT\_ASGMT\_ID are the foreign key of the table with reference to ip\_port\_asgmt.

TWO ORACLE DB QUERIES

1. **Displaying port assignment id, interface string, beg slot, cl number, port state and equipment name.**

Select i.IP\_PORT\_ASGMT\_ID, i.INTERFACE\_STRING, c.BEG\_SLOT, i.CL\_NUMBER, i.PORT\_STATE, e.EQUIP\_NAME , s.SERV\_NAME

from (((ip\_port\_asgmt i Inner JOIN IP\_ASSIGNED\_ENDPT ia on i.IP\_ENDPT = ia.ENDPOINT\_ID )

INNER JOIN Equipment e on ia.EQUIP\_ID = e.EQUIP\_ID )

INNER JOIN Component c on ia.COMP\_ID = c.COMP\_ID)

where c.COMP\_ID = 8811909;

1. **Displaying port assignment id, interface string, beg slot, cl number, port state, equipment name and service name.**

Select i.IP\_PORT\_ASGMT\_ID, i.INTERFACE\_STRING, c.BEG\_SLOT, i.CL\_NUMBER, i.PORT\_STATE, e.EQUIP\_NAME , s.SERV\_NAME

from ((((((ip\_port\_asgmt i Inner JOIN IP\_ASSIGNED\_ENDPT ia on i.IP\_ENDPT = ia.ENDPOINT\_ID )

INNER JOIN Equipment e on ia.EQUIP\_ID = e.EQUIP\_ID )

INNER JOIN Component c on ia.COMP\_ID = c.COMP\_ID)

Inner JOIN IP\_SERV\_ACC\_PT ips on i.SERV\_ACC\_PT\_ID = ips.SERV\_ACC\_PT\_ID)

Inner JOIN IP\_SERVICE\_CUST ipsc on ips.SERV\_ID = ipsc.SERV\_ID)

Inner JOIN SERVICE s on ips.SERV\_ID = s.SERV\_ID)

where c.COMP\_ID = 8811909;

FLOW

1. Failure

* Details of the equipment is fetched.
* It is then assigned to A and Z.
* Then we check whether there is any distributed lag present or not.
* We then built the ethernet composite link but in the failure it got failed as the cl number was blocked by the network or it was used by the canopi.
* It got failed.

1. Success

* Details of the equipment is fetched.
* It is then assigned to A and Z.
* Then we check whether there is any distributed lag present or not.
* We add the ethernet composite link.
* We checked for minimum CL number and maxCl number and find all the clnumber from the pool.
* We then checked for each cl Number whether we can get it as PA Id or not.
* After getting the particular CL Number we created the physical SAP as well as virtual SAP.
* Then we added the composite link.
* At last we check for the network model again and then creating physical and virtual PA for both A and Z.
* Assigning all the infra end point and thus our task is completed here.

Difference between Router and Server

Router - A machine that is between the network. The router is a flagger directing traffic.

Server - It is the endpoint of the network like our PC. A server receives a request and performs some sort of action, such as sending you a web page.

Physical Service

The chooses what kind of service will be provided. All the physical essence is done y this service

Infrastructure Service

This service provides the infra structure network.

MIS- Manager Interent Service

AVPN – provide VPN services

Logical Service

The logical actions are taken by this service ports are to be connected but how is decided by this service