OsmoBSC - Feature #4640

SI2quater: support multiple EUTRAN Neighbor Cells List entries, not only multiple EUTRAN Cell Descriptions in the first Cells List entry

07/03/2020 03:29 AM - neels

Status:	New	**Start date:**	07/03/2020
Priority:	Low	**Due date:**	
Assignee:		**% Done:**	0%
Category:			
Target version:			
Spec Reference:			

Description

The EUTRAN neighbor cells has two levels of nesting.
Looking at the ttcn3 def:

```
private type record of EUTRAN_NeighbourCell EUTRAN_NeighbourCells;  <-- outer list of Neighbor Cel
ls List entries
private type record EUTRAN_NeighbourCell {
        BIT1                            item_ind ('1'B),
        /* { 1 < Repeated E-UTRAN Neighbour Cells > } ** 0 */
        EUTRAN_CellDescs                cell_desc_list optional,       <-- inner list of Cell Desc
riptions sharing the prio, thresh and qrxlev
        BIT1                            cell_desc_list_term ('0'B),
        BIT1                            prio_presence, // 0/1
        uint3_t                         prio optional,
        uint5_t                         thresh_high,
        BIT1                            thresh_low_presence, // 0/1
        uint5_t                         thresh_low optional,
        BIT1                            qrxlevmin_presence, // 0/1
        uint5_t                         qrxlevmin optional
}
```

When using the osmo-bsc vty commands (bts level)

```
si2quater neighbor-list add earfcn 111 thresh-hi 17 thresh-lo 7 prio 2 qrxlv 19 meas 2
si2quater neighbor-list add earfcn 23 thresh-hi 20 thresh-lo 10 prio 3 qrxlv 22 meas 3
```

then it always adds another entry to the inner Cell Descriptions, and the last command overwrites the prio, thresh and qrxlev values of the single Neighbor Cells List entry produced.
in pseudocode:

```
  EUTRAN_neighbors_list = {
     [0] = {  cell_descs = {
                    [0] = { earfcn = 111, meas = 2 },
                    [1] = { earfcn = 23, meas = 3 }
                 },
              prio = 3,              <--- note, values overwritten from second VTY command
              thresh_hi = 20,
              thresh_lo = 10,
              qrxlev = 22,
           }
  }
```

Instead it may make sense to teach osmo-bsc config to allow multiple outer list entries as well:

```
  EUTRAN_neighbors_list = {
     [0] = {  cell_descs = {
                    [0] = { earfcn = 111, meas = 2 },
                    [1] = { earfcn = 112 },
                  },
```

```
            prio = 2,             <--- values from first VTY command
            thresh_hi = 17,
            thresh_lo = 7,
            qrxlev = 19,
          }
    [1] = {  cell_descs = {
                  [0] = { earfcn = 23, meas = 3 },
                  [1] = { earfcn = 42 },
               },
            prio = 3,             <--- values from second VTY command
            thresh_hi = 20,
            thresh_lo = 10,
            qrxlev = 22,
          }
  }
```

Furthermore, since the meas parameter is always closely tied to the EARFCN, it seems to me we should have an earfcn add command with only 'earfcn' and 'meas' parameters, not requiring to repeat the prio,thresh,qrxlev values for each earfcn entered in the Cell Descriptions.

History

#1 - 07/06/2020 03:03 PM - neels

- Priority changed from Normal to Low

#2 - 07/06/2020 03:03 PM - neels

- Status changed from Feedback to New

- Assignee deleted (laforge)