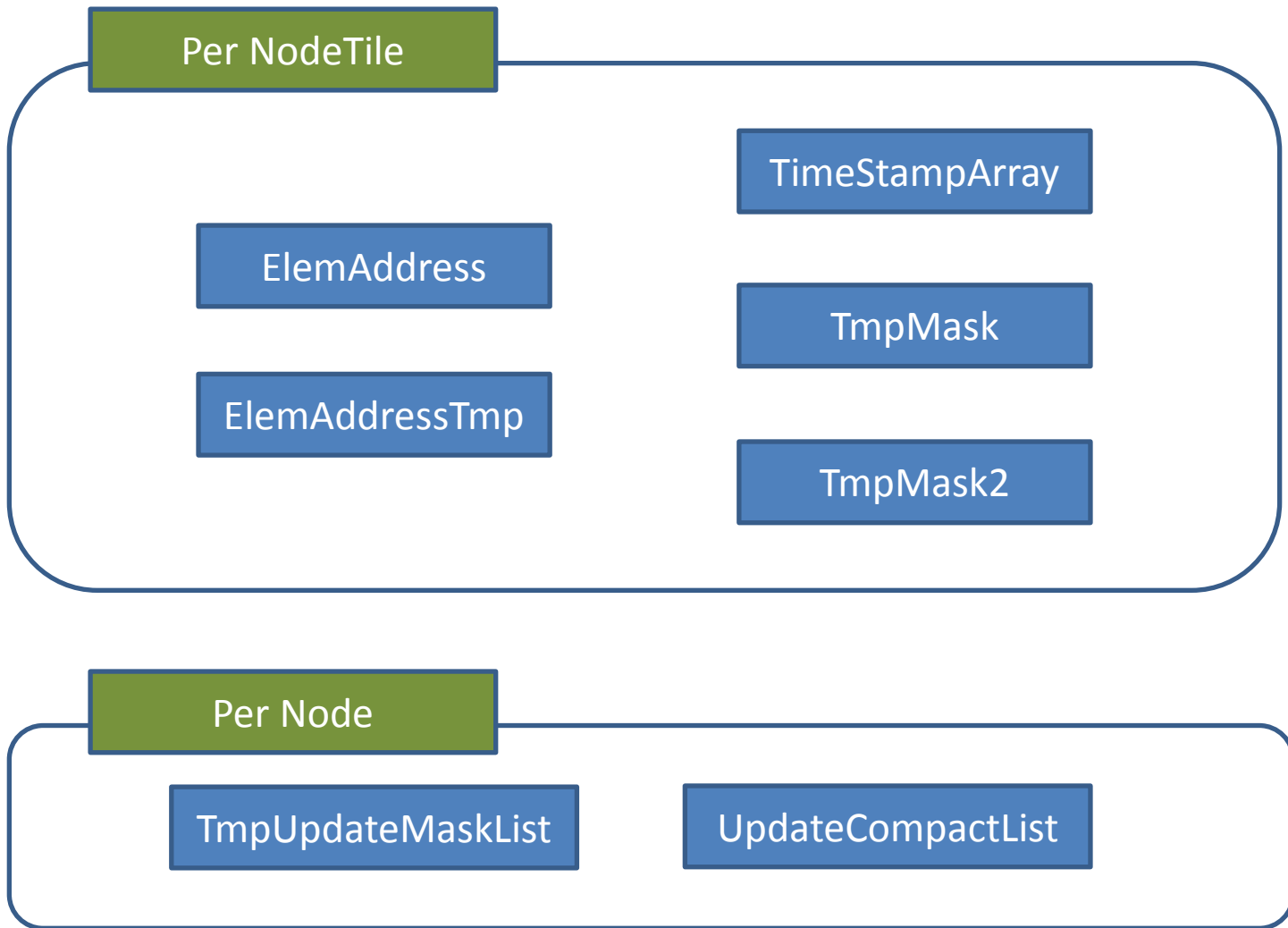
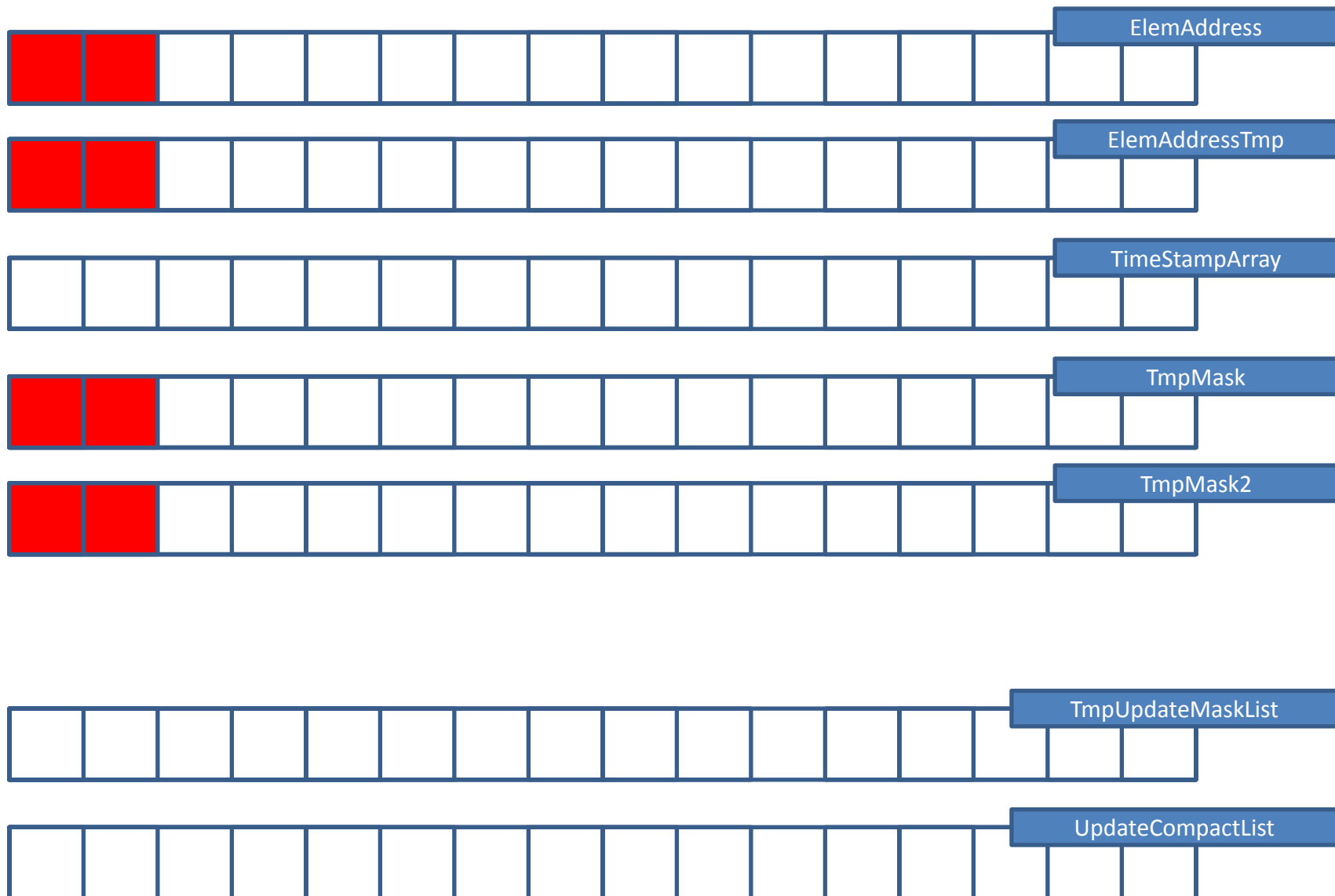


GigaVoxels / GigaSpace - Cache Management



GigaVoxels / GigaSpace - Cache Management



Update Timestamps – Flag Timestamps

step 1 / 5

```
nodeTile_Index = ElementAddress[ i ]  
nodeTile_Timestamp = timestampArray[ nodeTileIndex ]
```



```
If ( nodeTile_Timestamp == currentTime ) => nodeTile is USED else UNUSED
```



Update Timestamps – stream compaction (un-used)

step 2 / 5

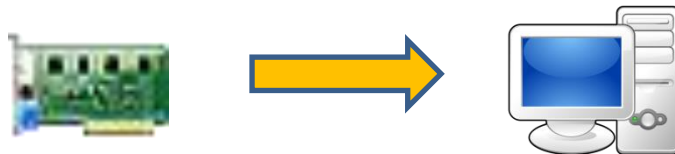


```
nodeTile_Mask = TmpMask[ i ]  
If ( nodeTile_Mask == 1 ) => elemAddressTmp[ i ] == elemAddress[ i ]
```



step 3 / 5

```
nbUnusedElements = streamCompaction( « un-used elements » )
```



Update Timestamps – stream compaction (used)

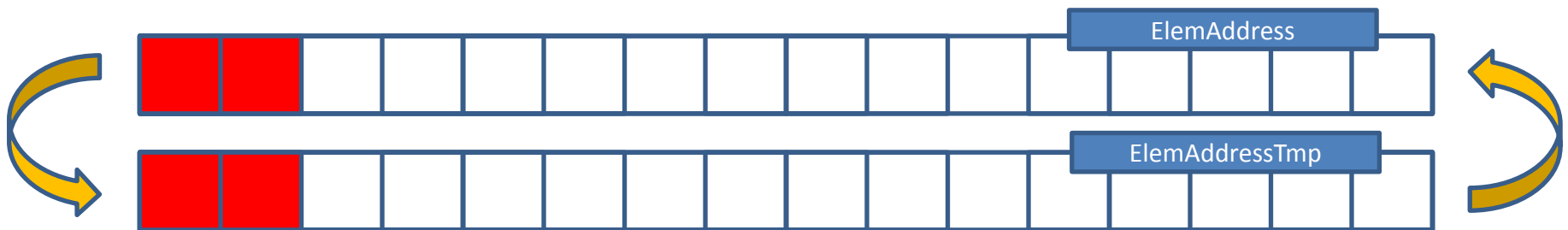
step 4 / 5



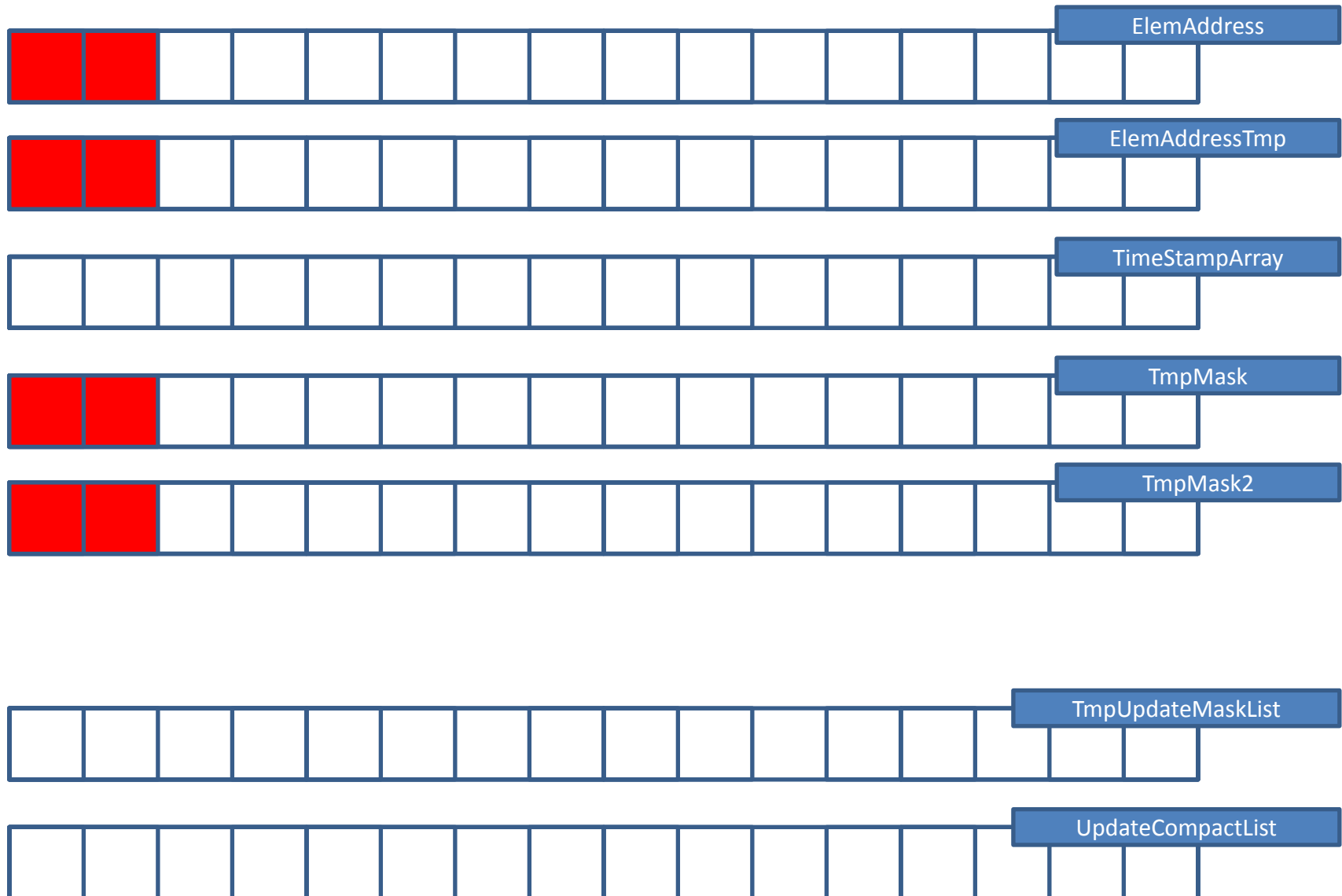
```
nodeTile_Mask = TmpMask2[ i ]  
If ( nodeTile_Mask == 1 ) => elemAddressTmp[ i + nbUnusedElements ] == elemAddress[ i ]
```



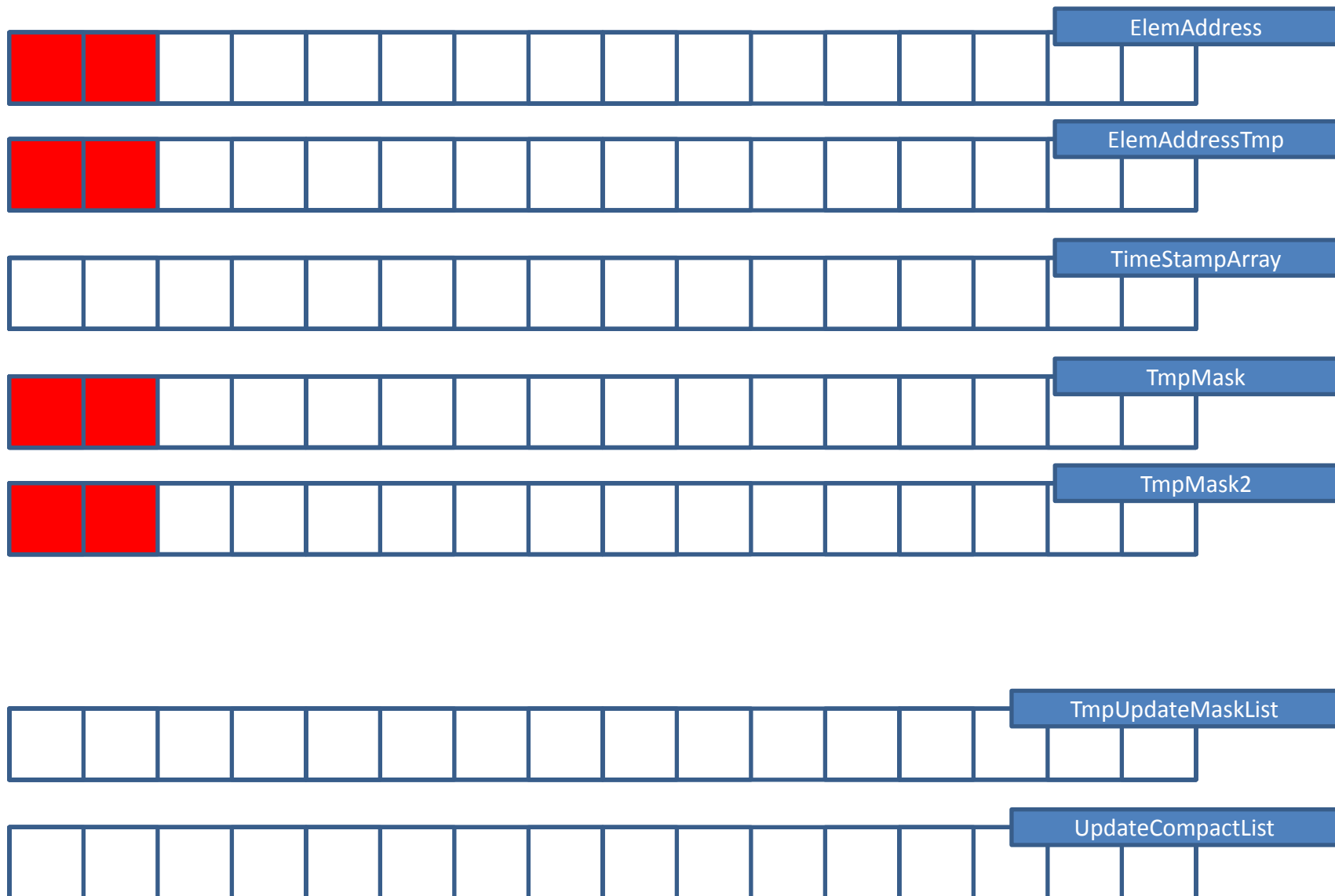
step 5 / 5



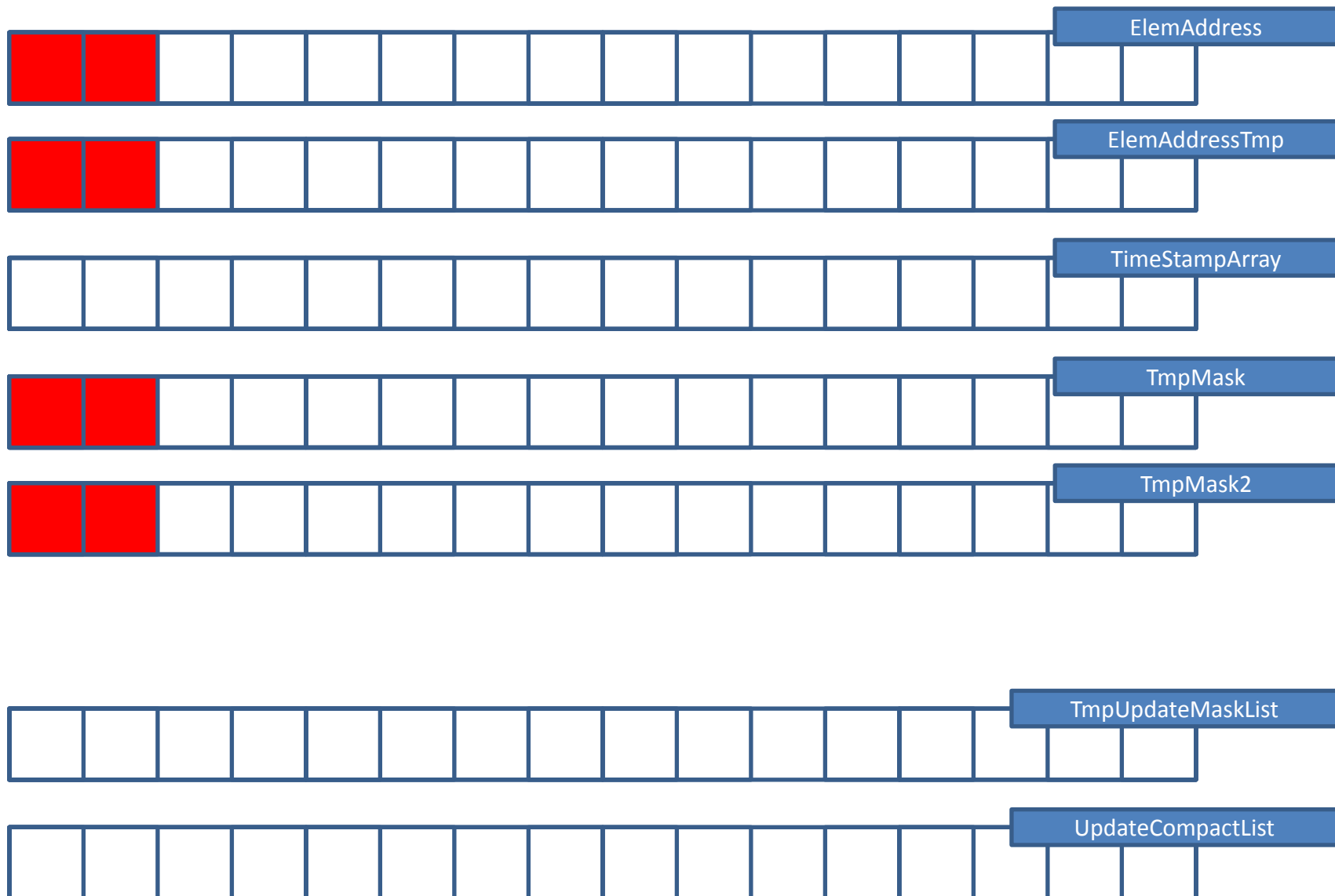
Update Timestamps – stream compaction (un-used)



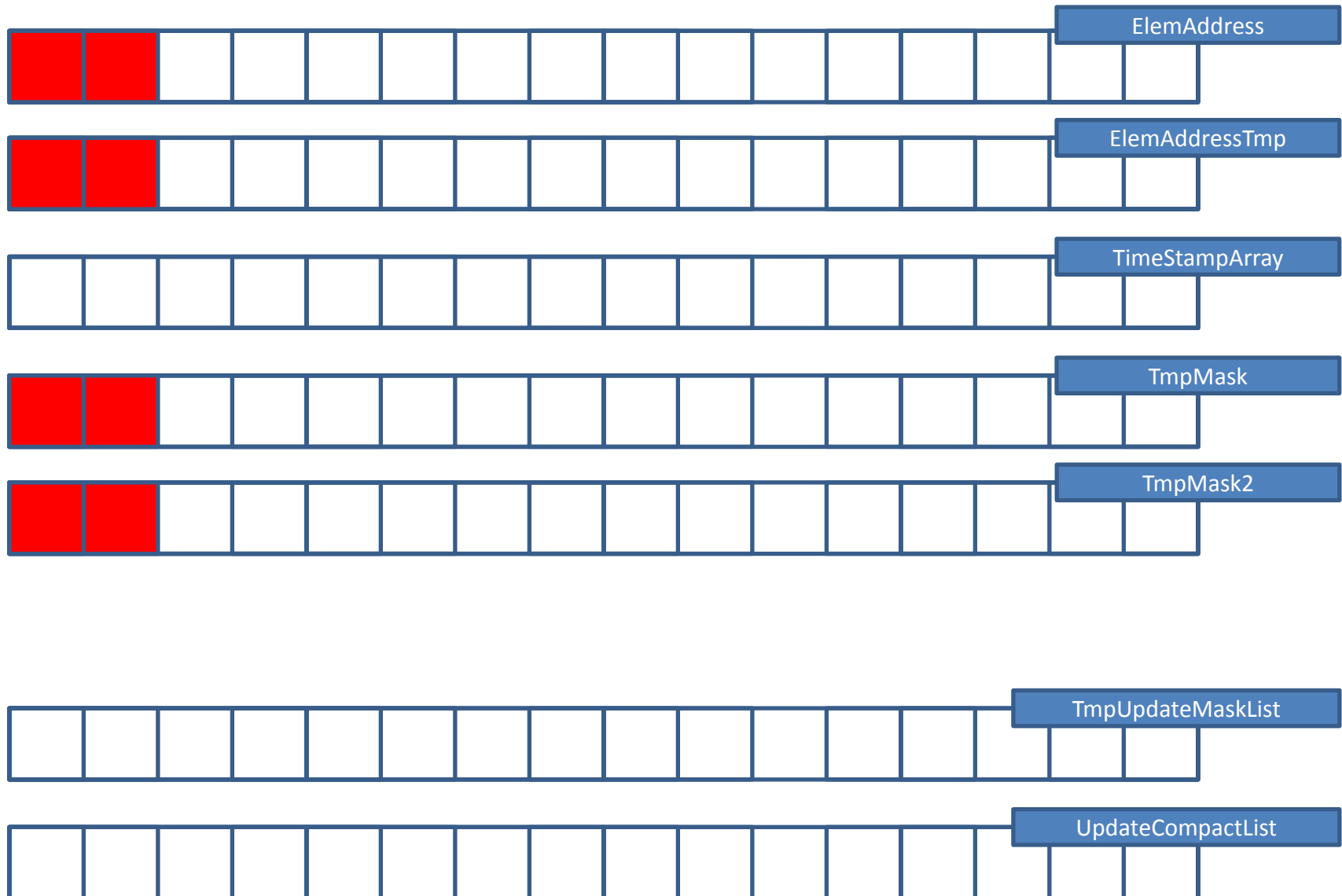
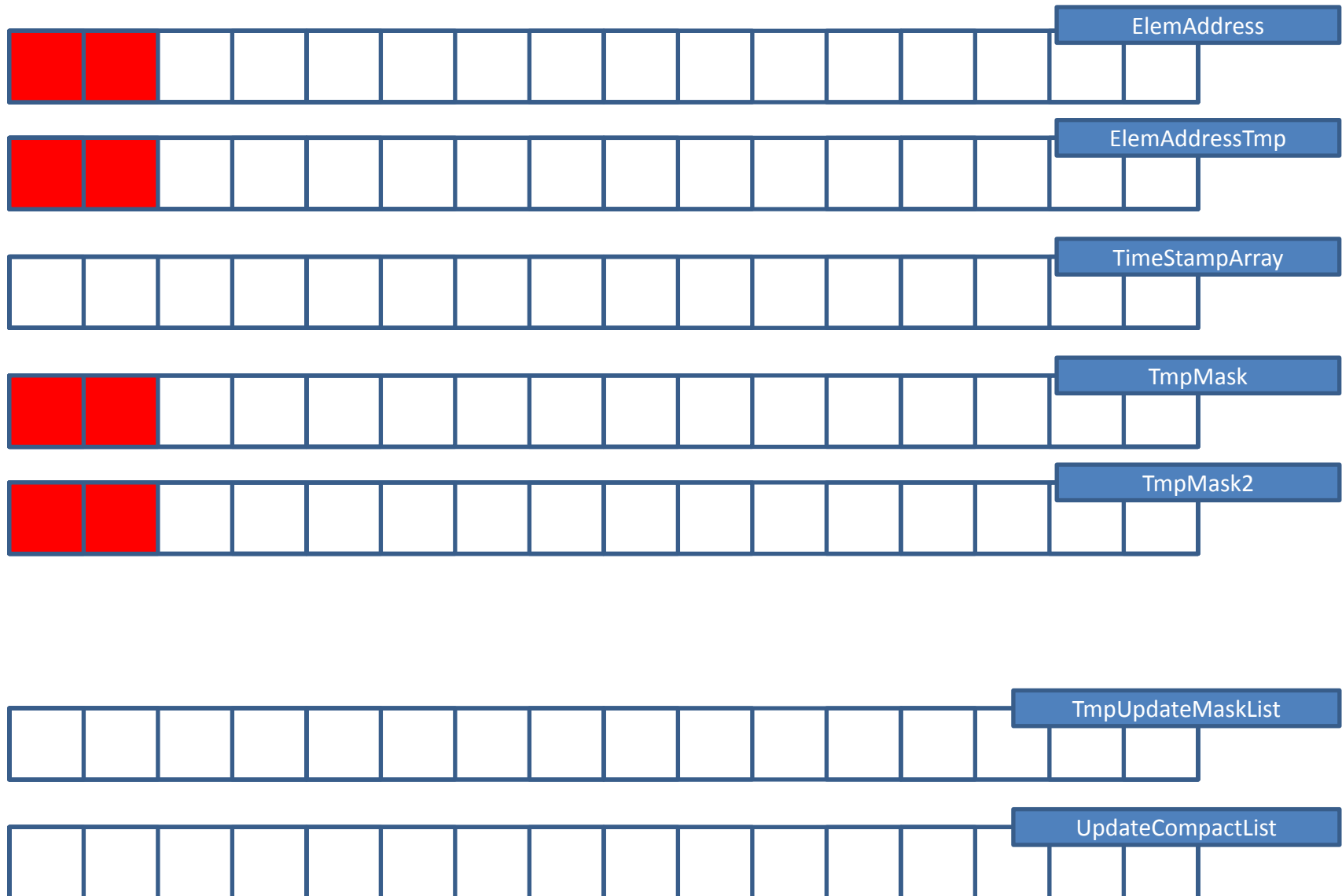
GigaVoxels / GigaSpace - Cache Management



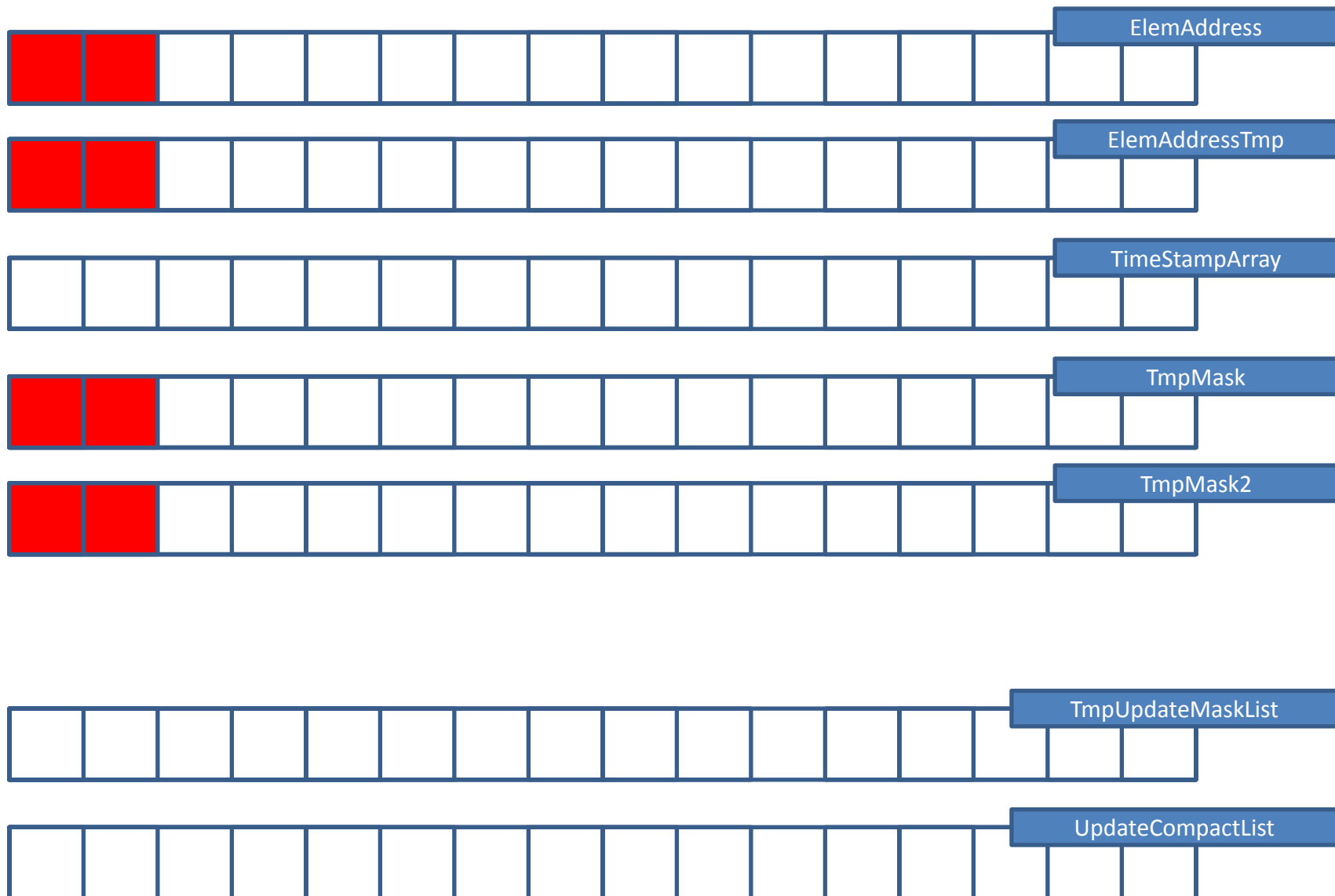
GigaVoxels / GigaSpace - Cache Management



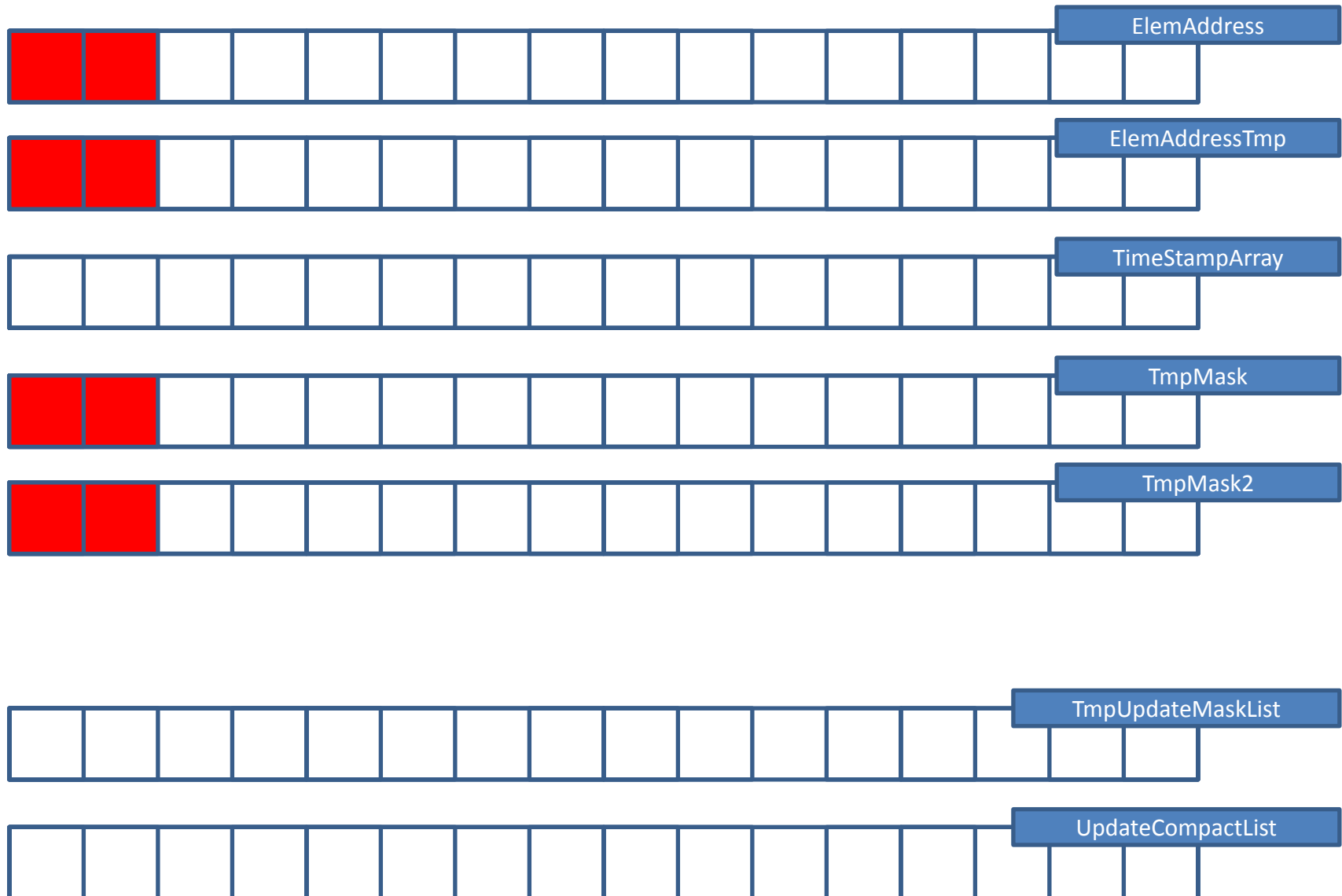
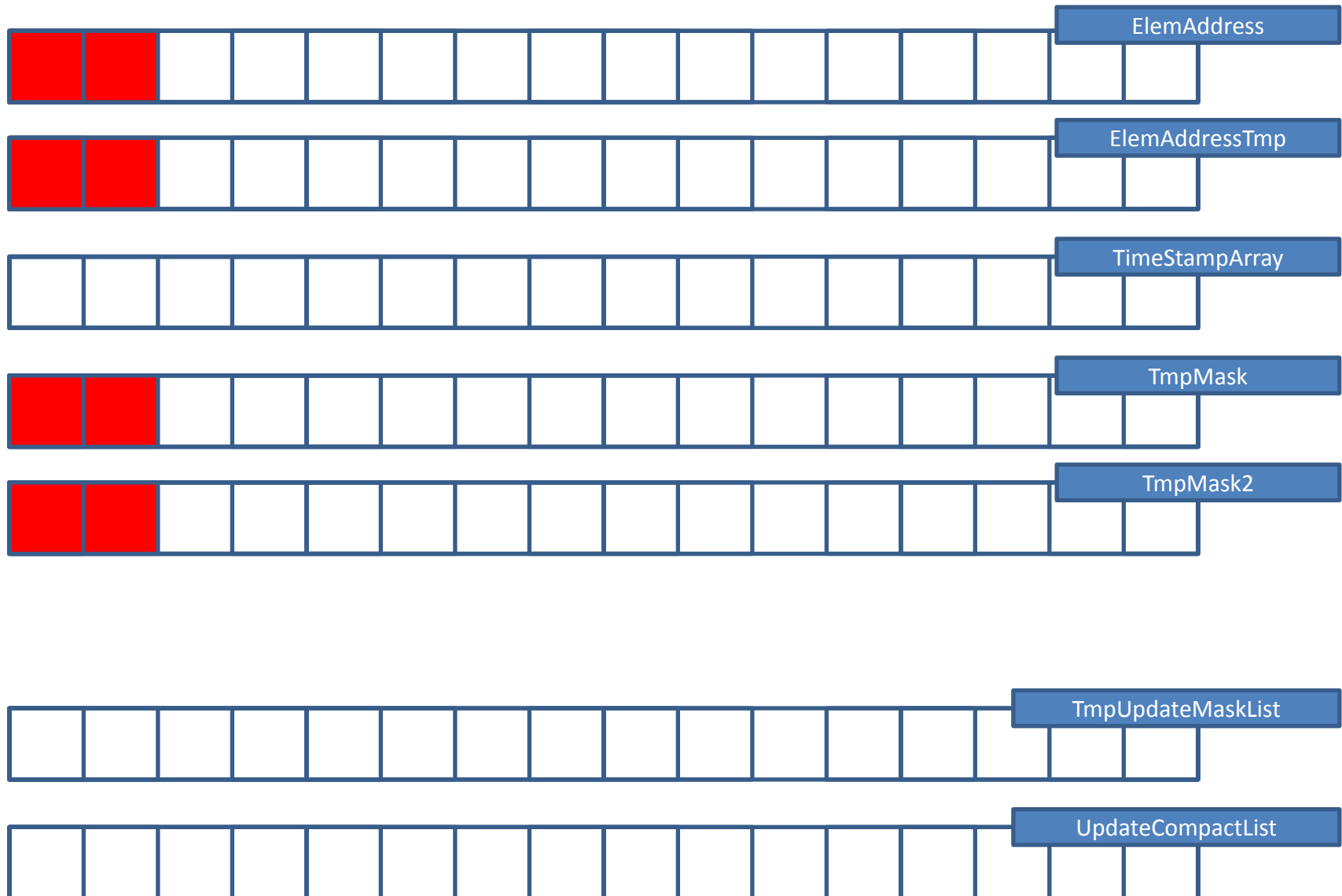
GigaVoxels / GigaSpace - Cache Management



GigaVoxels / GigaSpace - Cache Management



GigaVoxels / GigaSpace - Cache Management



GigaVoxels / GigaSpace - Cache Management

TmpUpdateMaskList

UpdateCompactList



TmpMask

TmpMask2

ElemAddressTmp

TimeStampArray

ElemAddress

GigaVoxels / GigaSpace - Cache Management

TmpUpdateMaskList

UpdateCompactList



TmpMask

TmpMask2

ElemAddressTmp

TimeStampArray

ElemAddress

GigaVoxels / GigaSpace - Cache Management

TmpUpdateMaskList

UpdateCompactList



TmpMask

TmpMask2

ElemAddressTmp

TimeStampArray

ElemAddress