# Hierarchy Test Case

One of the key tables we rely on for reporting is the HIERARCHY table which contains employee-to-manager relationships. This table not only determines how data is rolled up but is also used to identify what level of reporting an employee is allowed to see. For example, a Branch Manager can see the results for Account Managers reporting to them but each Account Manager can only see their own results.

A record is created in HIERARCHY for the employee with each of the managers who appear above the employee in the reporting structure, so an employee will have multiple records for each capture date.

|  |  |
| --- | --- |
| Employee roles: | Manager roles: |
| Account Manager (AM) | Assistant Branch Manager (ABM) |
| Senior Account Manager (SAM) | Branch Manager (BM) |
| Account Manager / Service Representative (AMSR) | Regional Vice-President (RVP) |
|  | Regional President (RP) |

The table below illustrates the four specific reporting structures currently captured in HIERARCHY.

|  |  |
| --- | --- |
| **A**  **B** |  |
| **D**  **C** |  |

**Detailed example of reporting structure type C**



**Source Table**

Data for HIERARCHY is sourced entirely from table **ALL\_EMPLOYEES**.

In ALL\_EMPLOYEES, the position ID columns are used to link records.

For example, the employee in row 5 is the manager of the employees in rows 1 and 2.



**Hierarchy table**

Example of how the relationships are stored in the destination table HIERARCHY.

There is one record for each of the managers above an employee in the reporting line.



**Assumptions**

1. AMCSRs, AMs and SAMs do not report directly to RVPs or RPs.
2. AMCSRs, AMs, and SAMs do not have other employees reporting to them.
3. All AMCSRs, AMs, and SAMs have at least one manager in a valid role type (manager role types include ABM, BM, RVP, RP).

**Challenge**

The logic that populates HIERARCHY today is limited to the four reporting structures described on the previous page. When there are breaks or gaps in the reporting structure, or if the reporting structure is not one of those four types, no rows are created at all for any of the employees in the reporting line even if they have other valid employee-manager relationships.

All valid employee-manager relationships should be captured in the SSE Hierarchy table.

Two scenarios are outlined below that may cause valid employee-manager relationship rows to be missing from the HIERARCHY table.

Scenario 1: A Branch Manager does not exist between an employee and an RVP.

Employees are currently only captured in the hierarchy if there is a Branch Manager in the levels above them. For example, if an ABM reports directly to an RVP none of the employee-to-ABM, employee- to-RVP, or employee- to-RP records will be created in the hierarchy.

Scenario 2: In one region only, a new role type has been inserted between the RVP and the RP.

This caused a break in the hierarchy and as a result no records are created for any employees in this region.

Example of structure: AM -> BM -> RVP -> VP -> RP.

In this case we do not wish to capture the new VP level but do wish to capture the other valid relationships (AM-to-BM, AM-to-RVP, AM-to-RP).

**Given the information above, provide your proposal on how you would identify and solve for these data gaps and non-standard reporting structures to capture all valid employee-to-manager relationships?**