SRE ASSIGNMENT NO# 1

REQUIREMENT VALIDATION

NAME: DANIYAL KHAN

SECTION: P

DATED: 12 December 2021

SUBMITTED TO: DR KHUBAIB AMJAD

RS 1:

Title: <u>CTC NETWORK</u>

ARM Findings:

The counts of IMPERATIVE components found in the directory file
2001 - ctc network.txt are shown in the Table below.

IMPERATIVE	OCCURRENCE
ARE APPLICABLE	0
ARE TO	0
IS REQUIRED TO	0
MUST	3
RESPONSIBLE FOR	0
SHALL	91
SHOULD	0
WILL	19
TOTAL	113

<u>**Imperatives:**</u> There are 113 total imperatives, out of which 91 are shall (functional requirements), 19 are will (interface requirements), which shows that this requirement is descriptive. "Shall" is not used even once. This will lead to high levels of understandability, and increase clearness.

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The counts of CONTINUANCE components found in the directory file
2001 - ctc network.txt are shown in the Table below.

CONTINUANCE	OCCURRENCE
:	75
AND	51
AS FOLLOWS:	2
BELOW:	0
FOLLOWING:	0
IN PARTICULAR:	0
LISTED:	0
SUPPORT:	0
TOTAL	128

<u>**Continuances:**</u> There are 128 total continuances, out of which 75 are and, 51 are " : " which shows that this requirement has amalgamation. This will lead to ambiguity.

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```
The counts of DIRECTIVE components found in the directory file
2001 - ctc network.txt are shown in the Table below.


    DIRECTIVE                                        OCCURRENCE
    ----------                                       ----------
    E.G.                                                 2
    FIGURE                                               1
    FOR EXAMPLE                                          0
    I.E.                                                 3
    NOTE:                                                0
    TABLE                                                90
                                                                  ----------
                                            TOTAL            96
```

Directives: There are 90 total directives, which shows that this requirement has large number of models and explanations. This will lead to higher level of understandability.

===

```
The counts of OPTION components found in the directory file
2001 - ctc network.txt are shown in the Table below.


    OPTION                                           OCCURRENCE
    ----------                                       ----------
    CAN                                                  3
    MAY                                                  3
    OPTIONALLY                                           0
                                                                  ----------
                                            TOTAL             6
```

Option: There are 6 total options, which shows that this requirement has small number of optional requirements. This will lead to clarity and higher level of understandability.

===

```
The counts of WEAK PHRASE components found in the directory file
2001 - ctc network.txt are shown in the Table below.


    WEAK PHRASE                                      OCCURRENCE
    ----------                                       ----------
    ADEQUATE                                             0
    AS APPROPRIATE                                       0
    AS REQUIRED                                          0
    BE ABLE TO                                           26
    BE CAPABLE OF                                        3
    CAPABILITY OF                                        0
    CAPABILITY TO                                        1
    EASY TO                                              0
    EFFECTIVE                                            0
    NORMAL                                               4
    PROVIDE FOR                                          0
    TIMELY                                               0
                                                                  ----------
                                            TOTAL            34
```

Weak Phrases: There are 34 total weak phrases, which shows that the requirement is unverifiable and incomplete. This will lead to ambiguity.

===

```
The counts of INCOMPLETES components found in the directory file
2001 - ctc network.txt are shown in the Table below.


    INCOMPLETES                                          OCCURRENCE
    ----------                                           ----------
    AS A MINIMUM                                             0
    BUT NOT LIMITED TO                                       0
    NOT DEFINED                                              0
    NOT DETERMINED                                           0
    TBC                                                      0
    TBD                                                      5
    TBE                                                      0
    TBR                                                      0
    TBS                                                      0
                                                                    ----------
                                            TOTAL           5
```

Incomplete Phrases: There are 5 incomplete phrases, which shows that this document is incomplete. This will lead to ambiguity

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RS 2:

Title: BEYOND

ARM Findings:

```
The counts of IMPERATIVE components found in the directory file
2001 - beyond.txt are shown in the Table below.


    IMPERATIVE                                           OCCURRENCE
    ----------                                           ----------
    ARE APPLICABLE                                           1
    ARE TO                                                   0
    IS REQUIRED TO                                           0
    MUST                                                    16
    RESPONSIBLE FOR                                          0
    SHALL                                                    3
    SHOULD                                                  55
    WILL                                                    38
                                                                    ----------
                                            TOTAL          113
```

Imperatives: There are 113 total imperatives, out of which 3 are shall (functional requirements), 38 are will (interface requirements), 1 is are applicable, 55 are should, which shows that this requirement is not descriptive. This will lead to incompleteness and ambiguity.

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```
The counts of CONTINUANCE components found in the directory file
2001 - beyond.txt are shown in the Table below.


    CONTINUANCE                                        OCCURRENCE
    ----------                                         ----------
    :                                                  58
    AND                                                332
    AS FOLLOWS:                                        0
    BELOW:                                             2
    FOLLOWING:                                         0
    IN PARTICULAR:                                     0
    LISTED:                                            0
    SUPPORT:                                           0
                                                                   ----------
                                                       TOTAL       392
```

Continuances: There are 392 total continuances, out of which 332 are and, 58 are " : " which shows that this requirement has less amalgamation. This will lead to higher clarity.

```
The counts of DIRECTIVE components found in the directory file
2001 - beyond.txt are shown in the Table below.


    DIRECTIVE                                          OCCURRENCE
    ----------                                         ----------
    E.G.                                               13
    FIGURE                                             9
    FOR EXAMPLE                                         0
    I.E.                                               3
    NOTE:                                              0
    TABLE                                              0
                                                                   ----------
                                                       TOTAL       25
```

Directives: There are 25 total directives, which shows that this requirement has low number of models and explanations. This will lead to less level of understandability.

```
The counts of OPTION components found in the directory file
2001 - beyond.txt are shown in the Table below.


    OPTION                                             OCCURRENCE
    ----------                                         ----------
    CAN                                                45
    MAY                                                6
    OPTIONALLY                                         0
                                                                   ----------
                                                       TOTAL       51
```

Option: There are 51 total options, which shows that this requirement has large number of optional requirements. This will lead to ambiguity.

```
The counts of WEAK PHRASE components found in the directory file
2001 - beyond.txt are shown in the Table below.


    WEAK PHRASE                                              OCCURRENCE
    ----------                                              ----------
    ADEQUATE                                                     0
    AS APPROPRIATE                                               0
    AS REQUIRED                                                  1
    BE ABLE TO                                                   7
    BE CAPABLE OF                                                0
    CAPABILITY OF                                                0
    CAPABILITY TO                                                0
    EASY TO                                                      0
    EFFECTIVE                                                    3
    NORMAL                                                       0
    PROVIDE FOR                                                  0
    TIMELY                                                       0
                                                            ----------
                                            TOTAL               11
```

Weak Phrases: There are 11 total weak phrases, which shows that the requirement is little unverifiable and incomplete. This will lead to low level of understandability.

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```
The counts of INCOMPLETES components found in the directory file
2001 - beyond.txt are shown in the Table below.


    INCOMPLETES                                             OCCURRENCE
    ----------                                             ----------
    AS A MINIMUM                                                0
    BUT NOT LIMITED TO                                         0
    NOT DEFINED                                                0
    NOT DETERMINED                                             0
    TBC                                                        0
    TBD                                                        0
    TBE                                                        0
    TBR                                                        0
    TBS                                                        0
                                                           ----------
                                           TOTAL              0
```

Incomplete Phrases: There are 0 incomplete phrases, which shows that this document is complete. This will lead to higher level of understandability.

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RS 3:

Title: ELSFORK

ARM Findings:

```
The counts of IMPERATIVE components found in the directory file
2001 - elsfork.txt are shown in the Table below.

    IMPERATIVE                                              OCCURRENCE
    ----------                                              ----------
    ARE APPLICABLE                                              0
    ARE TO                                                      0
    IS REQUIRED TO                                              0
    MUST                                                       24
    RESPONSIBLE FOR                                             1
    SHALL                                                      75
    SHOULD                                                     19
    WILL                                                       21
                                                                      ----------
                                                       TOTAL          140
```

Imperatives: There are 140 total imperatives, out of which 75 are shall (functional requirements), 21 are will (interface requirements), 24 are must, which shows that this requirement is descriptive. This will lead to high levels of understandability and clarity.

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```
The counts of CONTINUANCE components found in the directory file
2001 - elsfork.txt are shown in the Table below.

    CONTINUANCE                                             OCCURRENCE
    ----------                                              ----------
    :                                                         159
    AND                                                       301
    AS FOLLOWS:                                                 0
    BELOW:                                                      0
    FOLLOWING:                                                  2
    IN PARTICULAR:                                              0
    LISTED:                                                     0
    SUPPORT:                                                    0
                                                                      ----------
                                                       TOTAL          462
```

Continuances: There are 462 total continuances, out of which 301 are and, 159 are " : " which shows that this requirement has amalgamation. This will lead to less clarity.

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```
The counts of DIRECTIVE components found in the directory file
2001 - elsfork.txt are shown in the Table below.

    DIRECTIVE                                               OCCURRENCE
    ----------                                              ----------
    E.G.                                                       29
    FIGURE                                                     15
    FOR EXAMPLE                                                 4
    I.E.                                                        8
    NOTE:                                                       0
    TABLE                                                       3
                                                                      ----------
                                                       TOTAL           59
```

Directives: There are 59 total directives, which shows that this requirement has large number of models and explanations. This will lead to higher level of understandability.

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```
The counts of OPTION components found in the directory file
2001 - elsfork.txt are shown in the Table below.


     OPTION                                          OCCURRENCE
     ----------                                      ----------
     CAN                                                 23
     MAY                                                 31
     OPTIONALLY                                          0
                                                                    ----------
                                             TOTAL             54
```

Option: There are 54 total options, which shows that this requirement has large number of optional requirements. This will lead to ambiguity.

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```
The counts of WEAK PHRASE components found in the directory file
2001 - elsfork.txt are shown in the Table below.


     WEAK PHRASE                                     OCCURRENCE
     ----------                                      ----------
     ADEQUATE                                            0
     AS APPROPRIATE                                      0
     AS REQUIRED                                         0
     BE ABLE TO                                          5
     BE CAPABLE OF                                       0
     CAPABILITY OF                                       0
     CAPABILITY TO                                       1
     EASY TO                                             1
     EFFECTIVE                                           0
     NORMAL                                              2
     PROVIDE FOR                                         0
     TIMELY                                              0
                                                                    ----------
                                             TOTAL              9
```

Weak Phrases: There are 9 total weak phrases, which shows that the requirement is little unverifiable and incomplete. This will lead to low level of understandability and ambiguity.

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```
The counts of INCOMPLETES components found in the directory file
2001 - elsfork.txt are shown in the Table below.


     INCOMPLETES                                     OCCURRENCE
     ----------                                      ----------
     AS A MINIMUM                                        0
     BUT NOT LIMITED TO                                 0
     NOT DEFINED                                         0
     NOT DETERMINED                                      0
     TBC                                                 0
     TBD                                                 0
     TBE                                                 0
     TBR                                                 0
     TBS                                                 0
                                                                    ----------
                                             TOTAL              0
```

Incomplete Phrases: There are 0 incomplete phrases, which shows that this document is complete. This will lead to higher level of understandability.

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RS 4:

Title: <u>ESA</u>

ARM Findings:

```
The counts of IMPERATIVE components found in the directory file
2001 - esa.txt are shown in the Table below.
```

IMPERATIVE	OCCURRENCE
ARE APPLICABLE	0
ARE TO	0
IS REQUIRED TO	0
MUST	0
RESPONSIBLE FOR	0
SHALL	56
SHOULD	0
WILL	16
TOTAL	72

<u>**Imperatives:**</u> There are 72 total imperatives, out of which 56 are shall (functional requirements), 16 are will (interface requirements), which shows that this requirement is very descriptive. This will lead to high levels of understandability.

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```
The counts of CONTINUANCE components found in the directory file
2001 - esa.txt are shown in the Table below.
```

CONTINUANCE	OCCURRENCE
:	54
AND	132
AS FOLLOWS:	1
BELOW:	0
FOLLOWING:	0
IN PARTICULAR:	0
LISTED:	0
SUPPORT:	0
TOTAL	187

<u>**Continuances:**</u> There are 187 total continuances, out of which 132 are and, 54 are " : " which shows that this requirement has less amalgamation. This will lead to higher clarity.

===

```
The counts of DIRECTIVE components found in the directory file
2001 - esa.txt are shown in the Table below.


        DIRECTIVE                                        OCCURRENCE
        ----------                                       ----------
        E.G.                                                 2
        FIGURE                                               0
        FOR EXAMPLE                                          1
        I.E.                                                 0
        NOTE:                                                1
        TABLE                                                9
                                                                       ----------
                                                         TOTAL      13
```

Directives: There are 13 total directives, which shows that this requirement has low number of models and explanations. This will lead to less level of understandability.

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```
The counts of OPTION components found in the directory file
2001 - esa.txt are shown in the Table below.


        OPTION                                           OCCURRENCE
        ----------                                       ----------
        CAN                                                  6
        MAY                                                  5
        OPTIONALLY                                           0
                                                                       ----------
                                                         TOTAL      11
```

Option: There are 11 total options, which shows that this requirement has small number of optional requirements. This will lead to clarity and higher level of understandability.

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```
The counts of WEAK PHRASE components found in the directory file
2001 - esa.txt are shown in the Table below.


        WEAK PHRASE                                      OCCURRENCE
        ----------                                       ----------
        ADEQUATE                                             0
        AS APPROPRIATE                                       0
        AS REQUIRED                                          0
        BE ABLE TO                                           0
        BE CAPABLE OF                                        0
        CAPABILITY OF                                        0
        CAPABILITY TO                                        0
        EASY TO                                              0
        EFFECTIVE                                            0
        NORMAL                                               0
        PROVIDE FOR                                          0
        TIMELY                                               0
                                                                       ----------
                                                         TOTAL       0
```

Weak Phrases: There are 0 total weak phrases, which shows that the requirement is verifiable and complete. This will lead to higher level of understandability.

```
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The counts of INCOMPLETES components found in the directory file
2001 - esa.txt are shown in the Table below.


    INCOMPLETES                                      OCCURRENCE
    ----------                                       ----------
    AS A MINIMUM                                         0
    BUT NOT LIMITED TO                                  0
    NOT DEFINED                                          0
    NOT DETERMINED                                       0
    TBC                                                  0
    TBD                                                  0
    TBE                                                  0
    TBR                                                  0
    TBS                                                  0
                                                                    ----------
                                       TOTAL            0
```

Incomplete Phrases: There are 0 incomplete phrases, which shows that this document is complete. This will lead to higher level of understandability.

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RS 5:

Title: HATS

ARM Findings:

```
The counts of IMPERATIVE components found in the directory file
2001 - hats.txt are shown in the Table below.


    IMPERATIVE                                       OCCURRENCE
    ----------                                       ----------
    ARE APPLICABLE                                       0
    ARE TO                                               2
    IS REQUIRED TO                                       0
    MUST                                                10
    RESPONSIBLE FOR                                      2
    SHALL                                              296
    SHOULD                                               8
    WILL                                                44
                                                                    ----------
                                       TOTAL          362
```

Imperatives: There are 362 total imperatives, out of which 296 are shall (functional requirements), 44 are will (interface requirements), and 8 are should, which shows that this requirement is very descriptive. This will lead to high levels of understandability.

```
                              ========================================

The counts of CONTINUANCE components found in the directory file
2001 - hats.txt are shown in the Table below.


        CONTINUANCE                                           OCCURRENCE
        ----------                                            ----------
        :                                                         395
        AND                                                       360
        AS FOLLOWS:                                                 1
        BELOW:                                                      0
        FOLLOWING:                                                  0
        IN PARTICULAR:                                             0
        LISTED:                                                     0
        SUPPORT:                                                    0
                                                              ----------
                                                TOTAL              756
```

<u>Continuances:</u> There are 756 total continuances, out of which 360 are and, 395 are " : " which shows that this requirement has high amalgamation. This will lead to lesser clarity.

```
                              ========================================

The counts of DIRECTIVE components found in the directory file
2001 - hats.txt are shown in the Table below.


        DIRECTIVE                                             OCCURRENCE
        ----------                                            ----------
        E.G.                                                       0
        FIGURE                                                    21
        FOR EXAMPLE                                                6
        I.E.                                                       1
        NOTE:                                                      0
        TABLE                                                     39
                                                              ----------
                                                TOTAL               67
```

<u>Directives:</u> There are 67 total directives, which shows that this requirement has large number of models and explanations. This will lead to higher level of understandability.

```
                              ========================================

The counts of OPTION components found in the directory file
2001 - hats.txt are shown in the Table below.


        OPTION                                                OCCURRENCE
        ----------                                            ----------
        CAN                                                       14
        MAY                                                       29
        OPTIONALLY                                                 1
                                                              ----------
                                                TOTAL               44
```

<u>Option:</u> There are 44 total options, which shows that this requirement has large number of optional requirements. This will lead to ambiguity.

```
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The counts of WEAK PHRASE components found in the directory file
2001 - hats.txt are shown in the Table below.


    WEAK PHRASE                                              OCCURRENCE
    ----------                                               ----------
    ADEQUATE                                                     0
    AS APPROPRIATE                                               0
    AS REQUIRED                                                  0
    BE ABLE TO                                                  19
    BE CAPABLE OF                                                0
    CAPABILITY OF                                                0
    CAPABILITY TO                                                2
    EASY TO                                                      0
    EFFECTIVE                                                    0
    NORMAL                                                       0
    PROVIDE FOR                                                  2
    TIMELY                                                       0
                                                            ----------
                                                TOTAL          23
```

Weak Phrases: There are 23 total weak phrases, which shows that the requirement is majorly unverifiable and incomplete. This will lead to ambiguity and low level of understandability.

```
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The counts of INCOMPLETES components found in the directory file
2001 - hats.txt are shown in the Table below.


    INCOMPLETES                                              OCCURRENCE
    ----------                                               ----------
    AS A MINIMUM                                                 0
    BUT NOT LIMITED TO                                           0
    NOT DEFINED                                                  0
    NOT DETERMINED                                               0
    TBC                                                          0
    TBD                                                          0
    TBE                                                          0
    TBR                                                          0
    TBS                                                          0
                                                            ----------
                                                TOTAL           0
```

Incomplete Phrases: There are 0 incomplete phrases, which shows that this document is complete. This will lead to higher level of understandability.

RS 6:

Title: <u>AGENTMOM</u>

ARM Findings:

```
The counts of IMPERATIVE components found in the directory file
2003 - agentmom.txt are shown in the Table below.
```

IMPERATIVE	OCCURRENCE
ARE APPLICABLE	0
ARE TO	0
IS REQUIRED TO	0
MUST	1
RESPONSIBLE FOR	0
SHALL	25
SHOULD	1
WILL	1
TOTAL	28

<u>Imperatives:</u> There are 28 total imperatives, out of which 25 are shall (functional requirements), 1 is will (interface requirements), which shows that this requirement is descriptive. This will lead to high levels of understandability.

```
The counts of CONTINUANCE components found in the directory file
2003 - agentmom.txt are shown in the Table below.
```

CONTINUANCE	OCCURRENCE
:	6
AND	32
AS FOLLOWS:	0
BELOW:	0
FOLLOWING:	0
IN PARTICULAR:	0
LISTED:	0
SUPPORT:	0
TOTAL	38

<u>Continuances:</u> There are 38 total continuances, out of which 32 are and, 6 are " : " which shows that this requirement has less amalgamation. This will lead to higher clarity.

```
The counts of DIRECTIVE components found in the directory file
2003 - agentmom.txt are shown in the Table below.

      DIRECTIVE                                    OCCURRENCE
      ----------                                   ----------
      E.G.                                             0
      FIGURE                                           4
      FOR EXAMPLE                                      0
      I.E.                                             0
      NOTE:                                            1
      TABLE                                            1
                                                                ----------
                                                   TOTAL        6
```

Directives: There are 6 total directives, which shows that this requirement has very low number of models and explanations. This will lead to less level of understandability.

```
      OPTION                                       OCCURRENCE
      ----------                                   ----------
      CAN                                              3
      MAY                                              6
      OPTIONALLY                                       0
                                                                ----------
                                                   TOTAL        9
```

Option: There are 9 total options, which shows that this requirement has small number of optional requirements. This will lead to clarity and higher level of understandability.

```
The counts of WEAK PHRASE components found in the directory file
2003 - agentmom.txt are shown in the Table below.

      WEAK PHRASE                                  OCCURRENCE
      ----------                                   ----------
      ADEQUATE                                         0
      AS APPROPRIATE                                   0
      AS REQUIRED                                      0
      BE ABLE TO                                       0
      BE CAPABLE OF                                    0
      CAPABILITY OF                                    1
      CAPABILITY TO                                    0
      EASY TO                                          0
      EFFECTIVE                                        1
      NORMAL                                           0
      PROVIDE FOR                                      0
      TIMELY                                           0
                                                                ----------
                                                   TOTAL        2
```

Weak Phrases: There are 2 total weak phrases, which shows that the requirement is majorly verifiable but incomplete. This will lead to high level of understandability.

```
The counts of INCOMPLETES components found in the directory file
2003 - agentmom.txt are shown in the Table below.


    INCOMPLETES                                          OCCURRENCE
    ----------                                           ----------
    AS A MINIMUM                                             0
    BUT NOT LIMITED TO                                      0
    NOT DEFINED                                             0
    NOT DETERMINED                                          0
    TBC                                                     0
    TBD                                                     0
    TBE                                                     0
    TBR                                                     0
    TBS                                                     0
                                                                     ----------
                                               TOTAL            0
```

Incomplete Phrases: There are 0 incomplete phrases, which shows that this document is complete. This will lead to higher level of understandability.

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RS 7:

Title: PNNL

ARM Findings:

```
The counts of IMPERATIVE components found in the directory file
2003 - pnnl.txt are shown in the Table below.


    IMPERATIVE                                           OCCURRENCE
    ----------                                           ----------
    ARE APPLICABLE                                          1
    ARE TO                                                  4
    IS REQUIRED TO                                          0
    MUST                                                   15
    RESPONSIBLE FOR                                         1
    SHALL                                                 114
    SHOULD                                                 79
    WILL                                                   85
                                                                     ----------
                                               TOTAL           299
```

Imperatives: There are 299 total imperatives, out of which 114 are shall (functional requirements), 85 are will (interface requirements),79 are should, 15 are must, which shows that this requirement is very descriptive but might lead to ambiguity.

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```
CONTINUANCE                                    OCCURRENCE
----------                                     ----------
:                                                   456
AND                                                 632
AS FOLLOWS:                                           1
BELOW:                                                0
FOLLOWING:                                            0
IN PARTICULAR:                                        0
LISTED:                                               0
SUPPORT:                                              0
                                                   ----------
                                    TOTAL           1089
```

<u>Continuances:</u> There are 1089 total continuances, out of which 632 are and, 456 are " : " which shows that this requirement has higher amalgamation. This will lead to lesser clarity.

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```
The counts of DIRECTIVE components found in the directory file
2003 - pnnl.txt are shown in the Table below.


      DIRECTIVE                                OCCURRENCE
      ----------                               ----------
      E.G.                                         17
      FIGURE                                       20
      FOR EXAMPLE                                   2
      I.E.                                         56
      NOTE:                                        23
      TABLE                                        21
                                                ----------
                                    TOTAL          139
```

<u>Directives:</u> There are 139 total directives, which shows that this requirement has large number of models and explanations. This will lead to higher level of understandability.

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```
The counts of OPTION components found in the directory file
2003 - pnnl.txt are shown in the Table below.


      OPTION                                   OCCURRENCE
      ----------                               ----------
      CAN                                          44
      MAY                                          44
      OPTIONALLY                                    0
                                                ----------
                                    TOTAL           88
```

<u>Option:</u> There are 88 total options, which shows that this requirement has large number of optional requirements. This will lead to ambiguity.

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```
The counts of WEAK PHRASE components found in the directory file
2003 - pnnl.txt are shown in the Table below.


    WEAK PHRASE                                           OCCURRENCE
    ----------                                            ----------
    ADEQUATE                                                  0
    AS APPROPRIATE                                            0
    AS REQUIRED                                               0
    BE ABLE TO                                                2
    BE CAPABLE OF                                             1
    CAPABILITY OF                                             0
    CAPABILITY TO                                             5
    EASY TO                                                   0
    EFFECTIVE                                                 0
    NORMAL                                                    2
    PROVIDE FOR                                               1
    TIMELY                                                    0
                                                          ----------
                                           TOTAL             11
```

Weak Phrases: There are 11 total weak phrases, which shows that the requirement is majorly unverifiable and incomplete. This will lead to ambiguity and low level of understandability.

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```
The counts of INCOMPLETES components found in the directory file
2003 - pnnl.txt are shown in the Table below.


    INCOMPLETES                                           OCCURRENCE
    ----------                                            ----------
    AS A MINIMUM                                              0
    BUT NOT LIMITED TO                                       0
    NOT DEFINED                                              0
    NOT DETERMINED                                           0
    TBC                                                      0
    TBD                                                      1
    TBE                                                      0
    TBR                                                      0
    TBS                                                      0
                                                          ----------
                                           TOTAL             1
```

Incomplete Phrases: There are 1 incomplete phrases, which shows that this document is incomplete. This will lead to lesser level of understandability and ambiguity.

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RS 8:

Title: <u>QHEADACHE</u>

ARM Findings:

```
The counts of IMPERATIVE components found in the directory file
2003 - qheadache.txt are shown in the Table below.


    IMPERATIVE                                              OCCURRENCE
    ----------                                              ----------
    ARE APPLICABLE                                              0
    ARE TO                                                      0
    IS REQUIRED TO                                              0
    MUST                                                        8
    RESPONSIBLE FOR                                             0
    SHALL                                                       1
    SHOULD                                                      0
    WILL                                                        1
                                                          ----------
                                              TOTAL           10
```

<u>Imperatives:</u> There are 10 total imperatives, out of which 1 is shall (functional requirements), 1 is will (interface requirements), which shows that this requirement are not descriptive. This will lead to incompleteness of requirements.

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```
The counts of CONTINUANCE components found in the directory file
2003 - qheadache.txt are shown in the Table below.


    CONTINUANCE                                             OCCURRENCE
    ----------                                             ----------
    :                                                          16
    AND                                                        35
    AS FOLLOWS:                                                 0
    BELOW:                                                      0
    FOLLOWING:                                                  0
    IN PARTICULAR:                                              0
    LISTED:                                                     0
    SUPPORT:                                                    0
                                                          ----------
                                              TOTAL           51
```

<u>Continuances:</u> There are 51 total continuances, out of which 35 are and, 16 are " : " which shows that this requirement has less amalgamation. This will lead to higher clarity.

════════════════════════════════

```
The counts of DIRECTIVE components found in the directory file
2003 - qheadache.txt are shown in the Table below.

    DIRECTIVE                                          OCCURRENCE
    ----------                                         ----------
    E.G.                                                   0
    FIGURE                                                 0
    FOR EXAMPLE                                            0
    I.E.                                                   0
    NOTE:                                                  0
    TABLE                                                  0
                                                                    ----------
                                                   TOTAL           0
```

<u>Directives:</u> There are 0 total directives, which shows that this requirement has NO models and explanations. This will lead to least level of understandability.

═══════════════════════════════

```
The counts of OPTION components found in the directory file
2003 - qheadache.txt are shown in the Table below.

    OPTION                                             OCCURRENCE
    ----------                                         ----------
    CAN                                                    6
    MAY                                                    0
    OPTIONALLY                                             0
                                                                    ----------
                                                   TOTAL           6
```

<u>Option:</u> There are 6 total options, which shows that this requirement has small number of optional requirements. This will lead to clarity and higher level of understandability.

═══════════════════════════════

```
The counts of WEAK PHRASE components found in the directory file
2003 - qheadache.txt are shown in the Table below.

    WEAK PHRASE                                        OCCURRENCE
    ----------                                         ----------
    ADEQUATE                                               0
    AS APPROPRIATE                                         0
    AS REQUIRED                                            0
    BE ABLE TO                                             0
    BE CAPABLE OF                                          0
    CAPABILITY OF                                          0
    CAPABILITY TO                                          0
    EASY TO                                                0
    EFFECTIVE                                              0
    NORMAL                                                 0
    PROVIDE FOR                                            0
    TIMELY                                                 0
                                                                    ----------
                                                   TOTAL           0
```

<u>Weak Phrases:</u> There are 0 total weak phrases, which shows that the requirement is verifiable and complete. This will lead to high level of understandability.

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```
The counts of INCOMPLETES components found in the directory file
2003 - qheadache.txt are shown in the Table below.

    INCOMPLETES                                         OCCURRENCE
    ----------                                          ----------
    AS A MINIMUM                                            0
    BUT NOT LIMITED TO                                     0
    NOT DEFINED                                            0
    NOT DETERMINED                                         0
    TBC                                                   0
    TBD                                                   0
    TBE                                                   0
    TBR                                                   0
    TBS                                                   0
                                                                    ----------
                                        TOTAL              0
```

Incomplete Phrases: There are 0 incomplete phrases, which shows that this document is complete. This will lead to higher level of understandability.

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RS 9:

Title: TACHONET

ARM Findings:

```
The counts of IMPERATIVE components found in the directory file
2003 - tachonet.txt are shown in the Table below.

    IMPERATIVE                                          OCCURRENCE
    ----------                                          ----------
    ARE APPLICABLE                                         0
    ARE TO                                                2
    IS REQUIRED TO                                         0
    MUST                                                 67
    RESPONSIBLE FOR                                       0
    SHALL                                                1
    SHOULD                                               40
    WILL                                                 58
                                                                    ----------
                                        TOTAL            168
```

Imperatives: There are 168 total imperatives, out of which 1 is shall (functional requirements), 58 are will (interface requirements), which shows that this requirement is not descriptive. This will lead to high levels of ambiguity.

═══════════════════════════════

The counts of CONTINUANCE components found in the directory file
2003 - tachonet.txt are shown in the Table below.

CONTINUANCE	OCCURRENCE
:	95
AND	190
AS FOLLOWS:	0
BELOW:	1
FOLLOWING:	0
IN PARTICULAR:	0
LISTED:	0
SUPPORT:	0
TOTAL	286

Continuances: There are 286 total continuances, out of which 190 are and, 95 are " : " which shows that this requirement has less amalgamation. This will lead to higher clarity.

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The counts of DIRECTIVE components found in the directory file
2003 - tachonet.txt are shown in the Table below.

DIRECTIVE	OCCURRENCE
E.G.	14
FIGURE	14
FOR EXAMPLE	0
I.E.	1
NOTE:	0
TABLE	13
TOTAL	42

Directives: There are 42 total directives, which shows that this requirement has large number of models and explanations. This will lead to higher level of understandability.

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The counts of OPTION components found in the directory file
2003 - tachonet.txt are shown in the Table below.

OPTION	OCCURRENCE
CAN	7
MAY	14
OPTIONALLY	0
TOTAL	21

Option: There are 21 total options, which shows that this requirement has large number of optional requirements. This will lead to ambiguity.

══════════════════════════════

```
The counts of WEAK PHRASE components found in the directory file
2003 - tachonet.txt are shown in the Table below.


     WEAK PHRASE                                      OCCURRENCE
     ----------                                       ----------
     ADEQUATE                                             2
     AS APPROPRIATE                                       0
     AS REQUIRED                                          0
     BE ABLE TO                                           7
     BE CAPABLE OF                                        0
     CAPABILITY OF                                        0
     CAPABILITY TO                                        0
     EASY TO                                              2
     EFFECTIVE                                            1
     NORMAL                                               0
     PROVIDE FOR                                          0
     TIMELY                                               0
                                                                    ----------
                                            TOTAL          12
```

Weak Phrases: There are 12 total weak phrases, which shows that the requirement is majorly unverifiable and incomplete. This will lead to ambiguity and low level of understandability.

```
The counts of INCOMPLETES components found in the directory file
2003 - tachonet.txt are shown in the Table below.


     INCOMPLETES                                      OCCURRENCE
     ----------                                       ----------
     AS A MINIMUM                                         0
     BUT NOT LIMITED TO                                  0
     NOT DEFINED                                         0
     NOT DETERMINED                                      0
     TBC                                                 0
     TBD                                                 0
     TBE                                                 0
     TBR                                                 0
     TBS                                                 0
                                                                    ----------
                                            TOTAL           0
```

Incomplete Phrases: There are 0 incomplete phrases, which shows that this document is complete. This will lead to higher level of understandability.

RS 3:

Title: <u>ColorCast</u>

```
The counts of IMPERATIVE components found in the directory file
2004 - colorcast.txt are shown in the Table below.
```

IMPERATIVE	OCCURRENCE
ARE APPLICABLE	0
ARE TO	0
IS REQUIRED TO	0
MUST	8
RESPONSIBLE FOR	0
SHALL	0
SHOULD	7
WILL	61
TOTAL	76

Imperatives: There are 76 total imperatives, out of which 0 are shall (functional requirements), 61 are will (interface requirements), which shows that this requirement is not descriptive. This will lead to high levels of ambiguity.

```
The counts of CONTINUANCE components found in the directory file
2004 - colorcast.txt are shown in the Table below.
```

CONTINUANCE	OCCURRENCE
:	43
AND	91
AS FOLLOWS:	0
BELOW:	0
FOLLOWING:	0
IN PARTICULAR:	0
LISTED:	0
SUPPORT:	0
TOTAL	134

Continuances: There are 134 total continuances, out of which 91 are and, 43 are " : " which shows that this requirement has amalgamation. This will lead to lesser clarity.

```
The counts of DIRECTIVE components found in the directory file
2004 - colorcast.txt are shown in the Table below.

        DIRECTIVE                                              OCCURRENCE
        ----------                                             ----------
        E.G.                                                        0
        FIGURE                                                      0
        FOR EXAMPLE                                                 3
        I.E.                                                        0
        NOTE:                                                       0
        TABLE                                                       2
                                                               ----------
                                                       TOTAL       5
```

Directives: There are 5 total directives, which shows that this requirement has very few number of models and explanations. This will lead to lesser level of understandability.

```
The counts of OPTION components found in the directory file
2004 - colorcast.txt are shown in the Table below.

        OPTION                                                 OCCURRENCE
        ----------                                             ----------
        CAN                                                        10
        MAY                                                         7
        OPTIONALLY                                                  0
                                                               ----------
                                                       TOTAL       17
```

Option: There are 17 total options, which shows that this requirement has small number of optional requirements. This will lead to clarity and higher level of understandability.

```
The counts of WEAK PHRASE components found in the directory file
2004 - colorcast.txt are shown in the Table below.

        WEAK PHRASE                                            OCCURRENCE
        ----------                                             ----------
        ADEQUATE                                                    0
        AS APPROPRIATE                                              0
        AS REQUIRED                                                 0
        BE ABLE TO                                                  1
        BE CAPABLE OF                                               0
        CAPABILITY OF                                               0
        CAPABILITY TO                                               0
        EASY TO                                                     2
        EFFECTIVE                                                   0
        NORMAL                                                      0
        PROVIDE FOR                                                 0
        TIMELY                                                      0
                                                               ----------
                                                       TOTAL       3
```

Weak Phrases: There are 3 total weak phrases, which shows that the requirement is majorly verifiable and complete. This will lead to high level of understandability.

```
The counts of INCOMPLETES components found in the directory file
2004 - colorcast.txt are shown in the Table below.


    INCOMPLETES                                    OCCURRENCE
    ----------                                     ----------
    AS A MINIMUM                                        0
    BUT NOT LIMITED TO                                 0
    NOT DEFINED                                        0
    NOT DETERMINED                                     0
    TBC                                                0
    TBD                                                2
    TBE                                                0
    TBR                                                0
    TBS                                                0
                                                   ----------
                                   TOTAL              2
```

Incomplete Phrases: There are 2 incomplete phrases, which shows that this document is incomplete. This will lead to ambiguity

=============================

Ranking out requirements Out of 10 on the basis of IEEE 830 standards:

SRS NO:	Understand-ability	Clearness	Unambiguity	Understand-ability	Clarity	Verifiability	Unambiguity	Completeness	Total
1.	10	9	7	9	7	0	3	2	47
2.	4	4	5	5	10	2	0	2	32
3.	5	8	4	7	3	5	3	9	41
4.	9	8	8	7	8	10	8	10	64
5.	9	6	4	8	4	3	2	10	46
6.	10	8	8	4	8	8	8	10	64
7.	8	7	7	8	8	6	5	8	57
8.	5	7	3	2	8	10	6	8	49
9.	6	6	3	8	8	6	4	9	50
10.	7	7	3	3	5	6	7	7	45

RANK	NAME
1.	RS#4
2.	RS#6
3.	RS#7
4.	RS#9
5.	RS#8
6.	RS#5
7.	RS#1
8.	RS#10
9.	RS#3
10.	RS#2