LFACS Processes/Functionality

One of the post order entry processes that provides a loop assignment in response to a local service request (LSR) utilizes an operations support system named LFACS. This system assigns a qualified facility to an LSR predicated on data selected from specific fields on the service request that define the product/service being ordered. These services are characterized in SOAC for LFACS via an outside plant equivalence code (OEC). The OEC consists of 15 parameters that describe the relevant characteristics of the service being requested from an outside plant provisioning perspective. These OEC parameters allow LFACS to accurately select outside plant facilities with the appropriate transmission characteristics to meet the requirements of the service being requested. A set of OEC parameter values is defined for each service code in the SOAC Service Code Data Table and for each USOC in the SOAC USOC Table. The OEC parameter definitions for, in order of descending importance, the service code (if any), the assignable line (AL) USOC and the class of service (CS) USOC on the service order are used by SOAC to determine the OEC parameter values which are sent to LFACS. One of the OEC parameters, the non-local switching indicator, is always determined solely from the serving and originating wire centers on the service order. Other OEC parameters may have their values overridden by SOAC as the result of other service order information.

In it's assignment algorithms; LFACS reflects the different transmission characteristics associated with different types of services by the service category. Currently LFACS recognizes 34 different service categories plus an undefined category utilized to enter service attributes when missing from other sources. LFACS determines the appropriate service category from 11 of the 15 OEC parameter values received from SOAC. The LFACS Service Category Table maps each combination of these OEC parameter values into one of the 35 service categories.

A set of OEC parameter values is derived by SOAC for each LFACS-involved assignable line (circuit termination) on the service order. These values are included in the assignment request that is sent to LFACS. The derivation of these values is based on the following information pertaining to each assignable line.

- If a service code is present, the set of OEC parameter values defined in the SOAC Service Code Data Table for that service code is utilized.
- The set of OEC parameter values is defined in the SOAC USOC table for the assignable line USOC.
- The set of OEC parameter values defined in the SOAC USOC table for the class of service USOC.
- The serving wire center and the originating wire center.
- The presence of the following floating FIDs (Field Identifiers):
    - PFW – Provisioning Four Wire
    - LPS – Loop Start
    - GST – Ground Start
- The value of the following floating FIDs (if present)
    - DSA – Distribution and supplemental Assignment
    - NC – Network Channel
- The parse rule table entry for the DSA FID, and corresponding CT-AR table entry (if either differs from the default)
- The parse rule table entry for the NC FID, and corresponding CT-AR table entry (if either differs from the default)

Some examples of the OEC parameter names include:

Number of Conductors	Manual Assistance Indicator
Grade of Service	Class of Service
Category	CO-Side Indicator
De-specialization	Signaling

In summary, a facility is assigned by LFACS to fulfill an LSR predicated on service attributes identified and communicated by the request for service. LFACS recognizes 34 discrete “clusters” of services represented by different transmission characteristics. LFACS determines these service categories from 11 of the 15 OEC parameter values received from SOAC. There are multiple tables and algorithms employed to create the “instructions” sent to LFACS that ultimately describe the transmission and facility attributes required to fulfill each service request. Utilizing these instructions LFACS then searches and returns the optimal available and compatible, assignable line predicated on that moment’s facility inventory and the aggregate highest weighted values of the service attributes requested.