

# Step 4

**(2) Operating Expenses:**

Operating expenses are developed in ICM utilizing a combination of two inter-dependent costing methodologies. These two methodologies allow GTE to analyze and accurately assign its operating expenses based on a cost causative approach. The two methodologies employed in the computation of operating expenses within ICM are the:

- (a) Cost Pool methodology, and;
- (b) Activity Based Cost (ABC) methodology.

**(a) Cost Pool Methodology:**

The *cost pool* methodology develops forward-looking expenses as a ratio of expenses to investments (E/I). The computation of this ratio (also referred to as the *maintenance & support* factor in the ICM Expense Results output table) is based on a multi-step process as illustrated in Attachment EM1. This multi-step process is summarized as follows:

- (1) **Base data:** The starting point for the cost pool methodology, GTE's expense and investment data, is based upon the books and records of GTE as summarized in the annual ARMIS Joint Cost Report (43-03), which is filed with the FCC. The ARMIS data is further identified by individual FCC Part 32 accounts and work centers. Work centers are utilized by GTE as the primary building block for cost centers and are used to capture and report the expense information of a managerial unit or function. It is at this level of detail that the operating expenses and investments of GTE are analyzed and assigned using the cost pool methodology.
- (2) **ARMIS Adjustments:** Certain accounting normalization adjustments are made to the detailed ARMIS data to create a baseline level of expense and investment data for input into ICM. Later in the process certain other types of adjustments are made to produce forward looking operating expenses and to remove costs related to other cost studies such as ABC studies, avoided cost studies, non-recurring studies, and other special studies. Also, in the process, adjustments are developed to bring book plant investments to a current level of cost. All adjustments made to the ARMIS base data are reflected in the detailed expense documentation (see Attachment D).
- (3) **Adjusted ARMIS Data:** The adjusted baseline data is computed for each FCC Part 32 account as follows:
  - (1) ARMIS Base Data + (2) ARMIS Adjustments
- (4) **Cost Pool Mapping:** The adjusted ARMIS expense and investment data, by FCC Part 32 account, is mapped to one of the twenty-one costs pools that have been established by GTE to classify costs, based on functionality, to various network elements, special studies, lines of business and common costs. The cost pools

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utilized by GTE in the mapping process are detailed in Attachment EM4 and include:

<u>Category</u>	<u>Cost Pool</u>
<b>Network Elements:</b>	Cable
	Aerial Non-Metallic Cable
	Aerial Metallic Cable
	Buried Non-Metallic Cable
	Buried Metallic Cable
	Underground Non-Metallic Cable
	Underground Metallic Cable
	Poles
	Conduit
	Transmission
	Switching
	Direct Other
<b>Special Studies:</b>	Access
	Information, Originating & Terminating (IOT)
	Operator Services
	Public Communications
<b>Common Costs:</b>	Billing & Collection
	Lines of Business:
	Consumer
	Business
	Carrier
	Common

The process of mapping expense and investment data to cost pools utilizes accounting information at the work center level and then, based on the work center functionality is mapped to a cost pool. Investment balances for the respective plant accounts are also mapped to their relative cost pool network function.

Special studies involve operating expenses which are not recovered through ICM TELRIC / TSLRIC cost studies and / or common costs (i.e.- Toll Study, Operator Services Study, etc.).

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**(5) Development of Cost Pool Fractions:** After the completion of the cost pool mapping process, the costs assigned to individual cost pools for each FCC Part 32 account is converted to a fraction. The cost pool fractions are computed by dividing the expenses assigned to each cost pool by the total account balance for each individual account.

### **Development of Total Expenses after Adjustments:**

**(6) Expense Adjustments:** In addition to the accounting normalization entries discussed earlier, certain other adjustments are included in ICM to produce forward looking costs and also remove costs that have been included in other studies such as Activity Based Cost (ABC), Non-Recurring Cost (NRC), Avoided Cost and miscellaneous special studies. These adjustments are input into ICM for each individual FCC Part 32 expense account through the use of three factors; Adjust1, Adjust2 and Adjust3. A breakdown of the types of activities associated with each adjustment factor is as follows:

- **Adjust1:** Adjustment factor 1 removes costs from the Adjusted ARMIS data relating to the following cost studies:
  - Avoided Cost (wholesale only)
  - Billing & Collection
  - Non-Recurring Cost
  - Directory Cost

In addition, other adjustments included as part of Adjust1 relate to the removal of Right-to-Use (RTU) expenses related to switch placements or upgrades that are included with the modeled switch investment in ICM as well as any applicable miscellaneous regulatory / normalization entries.

- **Adjust2:** The second expense adjustment factor pertains to the removal of costs from the Adjusted ARMIS data relating to the following Activity Based Cost (ABC) studies:
  - Service Assurance / Repair & Maintenance
  - Sales, Marketing & Advertising
- **Adjust3:** The third expense adjustment factor is used to eliminate the entire Adjusted ARMIS expense amount for a given FCC Part 32 account based on the following items:
  - Non-forward looking costs, such as account 6211 (Analog Switch), 6215 (Electro-mechanical Switch) and 6431 (Aerial Wire).
  - When the combination of Adjust1 plus Adjust2 exceeds 100%

- (7) **Adjusted Expense Amount:** The Adjusted Expense Amount for each individual account is computed as follows:

$$\text{Adjusted ARMIS Expense Data} * [ [ 1 - (1 - \text{Adjust1}) - (1 - \text{Adjust2}) ] * \text{Adjust3} ]$$

- (8) **General Support Expenses:** In addition to the operating expenses incurred by GTE related to general support expenses (i.e.- FCC Part 32 account 6112 through 6124), GTE also calculates and includes the capital costs associated with General Support Facility assets (i.e.- FCC Part 32 account 2111 through 2124). The capital carrying cost for each general support asset account is computed as follows:

$$\text{Adjusted ARMIS Investment Data} * \text{Adjust1} * \text{Adjust2} * \text{Adjust3} * \\ (\text{Depreciation \& Return factor} + \text{Composite Inc Tax factor} + \text{Property Tax factor})$$

The capital carrying cost for each general support asset account is distributed on the basis of the respective cost pool fractions for the associated expense account (i.e.- Account 2124 follows the cost pool assignment of account 6124).

- (9) **Distribution of Direct Other and Cable Cost Pools:** After Total Expenses for each cost pool has been computed, ICM distributes the costs assigned to the Direct Other and Cable cost pools as follows:

- "Direct Other" Cost Pool Assignment – The redistribution of "Direct Other" expenses is based on the relationship between the total for each network cost pool and the sum of all Network cost pools (Cable, Aerial Non-Metallic, Aerial Metallic, Buried Non-Metallic, Buried Metallic, Underground Non-Metallic, Underground Metallic, Poles, Conduit, Transmission, Switch and IOT and is computed as follows:

$$(\text{Each specific network cost pool amount} / \text{sum of all network cost pools}) \\ * \text{Total Direct Other Cost Pool expense}$$

- "Cable" Cost Pool Assignment - Redistribution of shared cable costs such as OSP Construction and Engineering cost to the Cable cost pools (i.e.- Aerial Non-Metallic, Aerial Metallic, Buried Non-Metallic, Buried Metallic, Underground Non-Metallic and Underground Metallic) as follows:

$$(\text{Each specific cable cost pool amount} / \text{sum of all cable cost pools}) \\ * \text{Total Cable Cost Pool expense}$$

- (10) **Total Expenses:** After the distribution of the Direct Other and Cable cost pools, total expenses for each cost pool is computed as follows:

$$\text{Adjusted Expense Amount} + \text{General Support Expense}$$

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## Development of Total Investment after Adjustments:

(11) **Investment Adjustments:** Similar to the expense adjustments discussed above, investment adjustments are input into ICM for each individual FCC Part 32 investment account through the use of three factors; Adjust1, Adjust2 and Adjust3. A breakdown of the types of activities associated with each adjustment factor is as follows:

- **Adjust1:** Investment adjustment 1 applies a C.A. Turner index to each FCC Part 32 investment account in order to adjust the average plant investment balance to current reproduction cost.
- **Adjust2:** The second investment adjustment is not currently used.
- **Adjust3:** The investment adjustment 3 factor is used to:
  - Eliminate the entire Adjusted ARMIS investment amount for a given FCC Part 32 account for non-forward looking costs, such as account 2211 (Analog Switch), 2215 (Electro-mechanical Switch) and 2431 (Aerial Wire).
  - Calibrate the C.A. Turner adjusted ARMIS investment data associated with switch, circuit equipment and outside plant (OSP) accounts to the levels calculated by the Switch, Loop, Interoffice Transport and SS7 modules of ICM.

(12) **Total Investment:** Total investment is computed as follows:

$$\text{Adjusted ARMIS Investment Data} * \text{Adjust1} * \text{Adjust2} * \text{Adjust3}$$

(13) **Computation of Maintenance & Support Factors:** After the distribution of the Direct Other and Cable cost pools, ICM computes the Maintenance & Support factors for each network cost pool as follows:

$$\text{Total Expenses by cost pool} / \text{Total Investment by cost pool}$$

The maintenance & support factor for each cost pool is then used in the Mapping / Report Module of ICM where they are applied to the appropriate modeled investment to calculate the monthly maintenance & support cost applicable for each unbundled network element or product and service.

**(b) "Activity Based Cost (ABC)" Methodology:**

The second methodology used in ICM for computing operating expenses is the "Activity Based Cost (ABC)" study approach. The ABC methodology provides GTE a better understanding of the forward-looking nature of certain activities and allows a more precise assignment of the cost of those activities to the causative unbundled network element (UNE), product or service. The ABC methodology incorporates the specific study, identification, definition and costing of activities performed by people and systems in each work center and the identification of the associated costs by cost object, i.e. UNE's, products and services. The costs associated with primary and supporting activities are assigned to UNE's, products and services through the use of various activity drivers. In other words, the cost of a work center is assigned to the cost object that a work center supports. The activity based cost developed from these studies become inputs into ICM and are included in the development of UNE, product or service costs in the Mapping / Report Module of ICM.

Activity based costing studies are prepared for the following four functional activities:

- (1) service assurance
- (2) sales, marketing & advertising
- (3) billing & collection
- (4) directory cost

(1) **Service Assurance** is defined as the process of maintaining service levels that consistently meet customer and commission expectations / requirements. The service assurance cost study identifies work activities related to repairing and maintaining network operations performed by GTE work centers in the Network Services organization. These activities include monitoring the network infrastructure, providing product support, restoring services, and performing preventative maintenance. The methodology utilized in this study requires the identification and costing of those activities associated with GTE personnel and Information Technology / Data Processing (IT/DP) systems in each work center engaged in service assurance activities. Forward-looking costs are incorporated into the service assurance study by utilizing work center management to forecast the impact of any known or planned changes to staffing levels, process modifications, and/or technology enhancements. Activity costs identified through this study are assigned to specific unbundled network elements, products and services based upon their respective consumption of demand units.

The costing principles employed in the service assurance study, as well as the associated detailed supporting documentation, are included under a separate tab in the ICM filing documentation.

(2) **Sales, Marketing & Advertising:** The purpose of this study is to determine the Total Service Long Run Incremental Cost (TSLRIC) and the Total Element Long Run Incremental Costs (TELRI) for recurring, regulated sales, marketing and advertising (SM&A) expenses associated with products and services. This

study is broken down into three market segment studies based on the type of customer and the services provided. The three studies include:

- Business Market
- Consumer Market
- Carrier Market

The entire sales, marketing & advertising activity based cost study, complete with all supporting documentation for each market, can be found under a separate tab in the ICM filing documentation.

- (3) **Billing & Collection:** The Billing & Collection (B&C) activity based cost study is composed of two separate studies. The first study focuses on the "*End User*" billing activity that is associated with residential, business and intralata toll customers. This study develops a cost per *access line* and a cost per intralata toll message for all end user billing & collection related activities. The second study is related to "*Carrier Access Billing Services (CABS)*" associated with inter-exchange carriers. The CABS study develops the costs per *minute of use* (MOU) for all carrier access billing and collection service related activities.

The entire billing & collection activity based cost study can be found under a separate tab in the ICM filing documentation.

- (4) **Directory Cost:** The Directory study develops the monthly recurring retail and wholesale white page directory costs. This study is focused on three major types of white page directory listings:

- Primary Listings (or main listings), which are basic, single-line listings which are provided to residential and business customers at no incremental fee.
- Premium Listings (or additional listings) include more information than the primary listings. A premium listing occupies no less than two lines in a white page directory. The additional listing is often referred to as a caption.
- Privacy Listings (non-listed or non-published) entail any listing which does not appear in white page directories due to a customer's request for privacy.

Directory costs are assigned to one of the three building blocks listed above. Only the unit costs applicable to primary listings are used in ICM. The complete directory study can be found under a separate tab in the ICM filing documentation



### (3) Shared Costs:

Shared costs are those costs in direct support of multiple parts of the network or groups of services, but can not be directly associated with a specific element of the network, UNE, product or service. In the development of its shared cost, GTE has identified four categories of shared costs. The four categories include:

- (a) **Outside Plant** shared cost that are related to, or in direct support of, the parts of the network (poles, aerial, buried and underground cable (copper and fiber) and conduit) that are used to provide UNE's and services (2Wire, R1, etc.) provided by the loop connection.
- (b) **Transmission** shared cost are those costs that have been identified to be associated with circuit equipment.
- (c) **Switching** shared cost are those costs that are associated with Central Office equipment and used in the provision of services provided by the central office switching equipment.
- (d) **Network** shared cost represent the costs that are directly related to the supervision and management of the entire network utilized to provide UNE's, products and services, but *not* a specific UNE, product or service.

### (4) Common Costs:

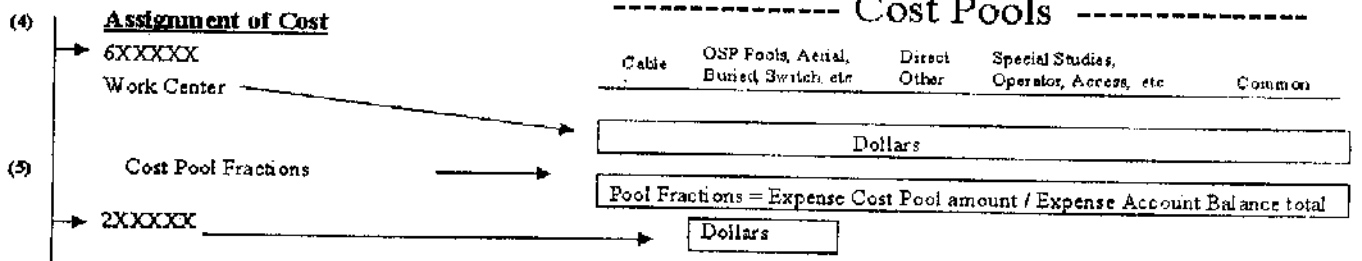
Common costs are those costs that can not be specifically assigned to the network or long run incremental costs (TELRIC / TSLRIC) but are incurred by a firm in support of all UNE's, products and services (i.e.- finance, human resources and legal expenses, etc.). The computation of common costs within ICM is determined utilizing the "Cost Pool" methodology outlined in item #2 above. Total common costs are identified in the following cost pools:

- billing & collection
- lines of business (consumer, business and carrier)
- common

Common costs are those that are required to manage and operate the entire company. Common costs are identified in totality for use and assignment for recovery by GTE's pricing group. ICM does not assign common costs to UNE's, TELRIC's or TSLRIC's.

**ICM Expense Module**  
"Cost Pool" approach

- (1) ARMIS Data
- (2) Adjustments to ARMIS:
  - Normalization Entries
  - Clearing Acct Redistribution
- (3) Adjusted ARMIS Data



**Adjustments to Cost**

	Adjust 1	Adjust 2	Adjust 3	(7)	(8)						
6XXXXXX	Avoided Cost (wholesale)	ABC	Account Elimination	=	Adjusted Expense Amount	+	General Support Expense	x	Cost Pool Fractions	=	Expense Cost Pool Amount
plus / less:	B&C									+	Direct Other Distribution (9)
	NRC									+	Cable Pool Distribution
	Directory / RTU									=	Total Expense by Cost Pool (10)
<b>(11)</b>											
2XXXXX times	C.A. Turner Indices		Account Elimination	=	Adjusted Investment Balance					÷	Adjusted Investment Balance (12)
			Calibration Factor							=	Maintenance & Support (Expense to Investment) Factors (13)