NON-RECURRING COST MODEL

Version 2.2

Model Description

Non-Recurring Cost Model

Description

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Non-Recurring Types
Detailed Work Activities
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I. OVERVIEW

The *Non-Recurring Cost Model (NRC Model)* develops one time (non-recurring) cost estimates for the tasks and activities that may be performed by an Incumbent Local Exchange Carrier (ILEC) when a Competitive Local Exchange Carrier (CLEC) requests wholesale services, interconnection, and/or unbundled network elements.

Utilizing a forward looking cost methodology, the *NRC Model* develops a "bottoms-up" estimate of non-recurring costs. The NRC Model reflects the individual OSS tasks and activities that may be required to respond to a CLEC request. To the extent feasible, each component has been separately costed.

The majority of non-recurring element types involve activities associated with the pre-ordering, ordering and /or provisioning process. A short description of these processes follows:

Pre-ordering: The process by which a CLEC interfaces with customers to determine customer needs. A CLEC and ILEC exchange necessary information to initiate orders. This information, such as customer premise address, phone number availability, feature availability and service availability is made accessible to CLECs electronically so they can accurately respond to customers when taking service and feature orders.

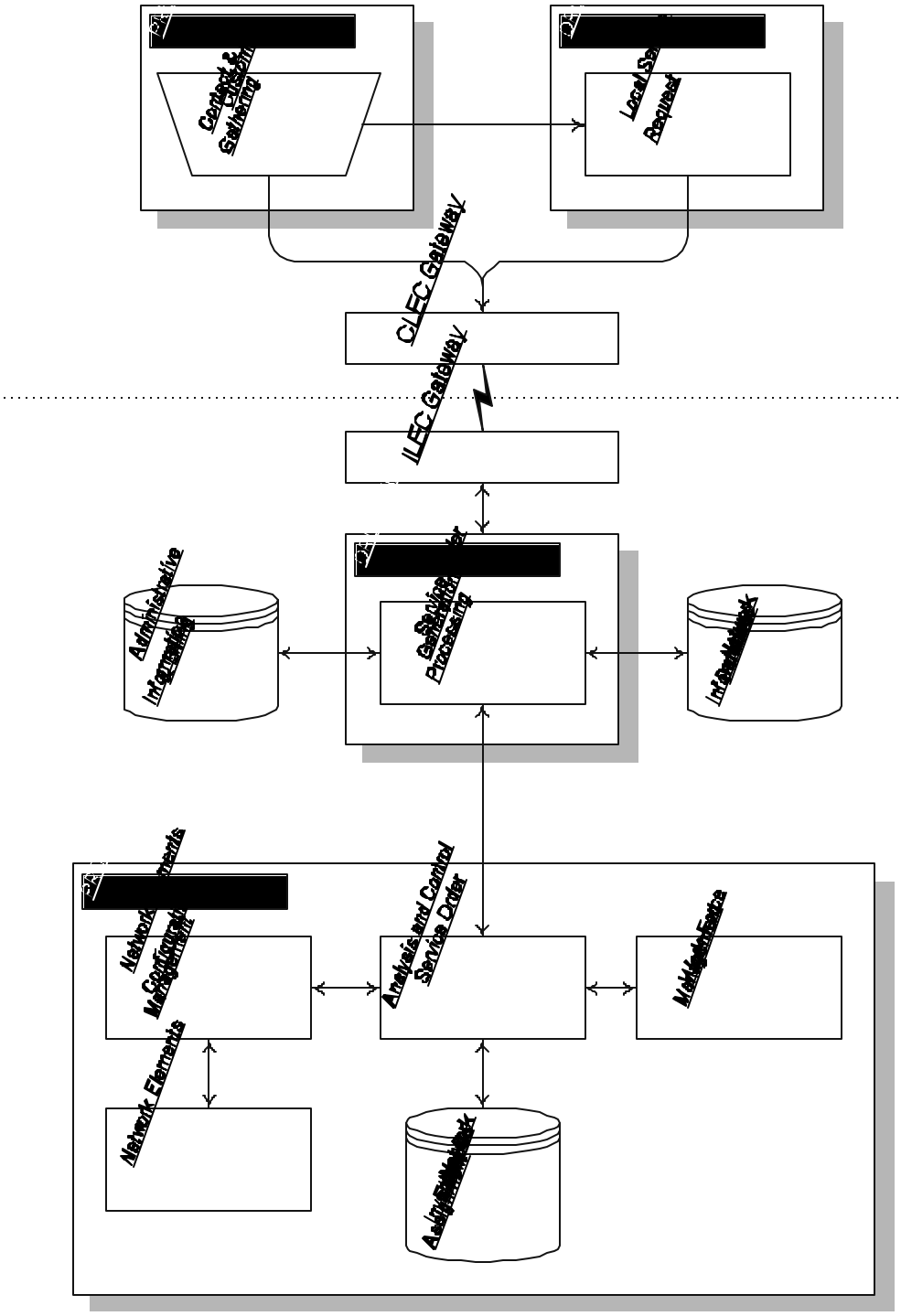
Ordering: The process by which a CLEC electronically submits a Local Service Request (LSR) to an ILEC via an electronic gateway. The ILEC responds electronically with a positive confirmation of order acceptance.

Provisioning: The process by which an ILEC, after receipt of an LSR order, performs the necessary functions to provide the service, interconnection, or Unbundled Network Elements (UNE) requested by a CLEC.

These processes are depicted in the high-level chart on the next page.

Non-Recurring Cost Model

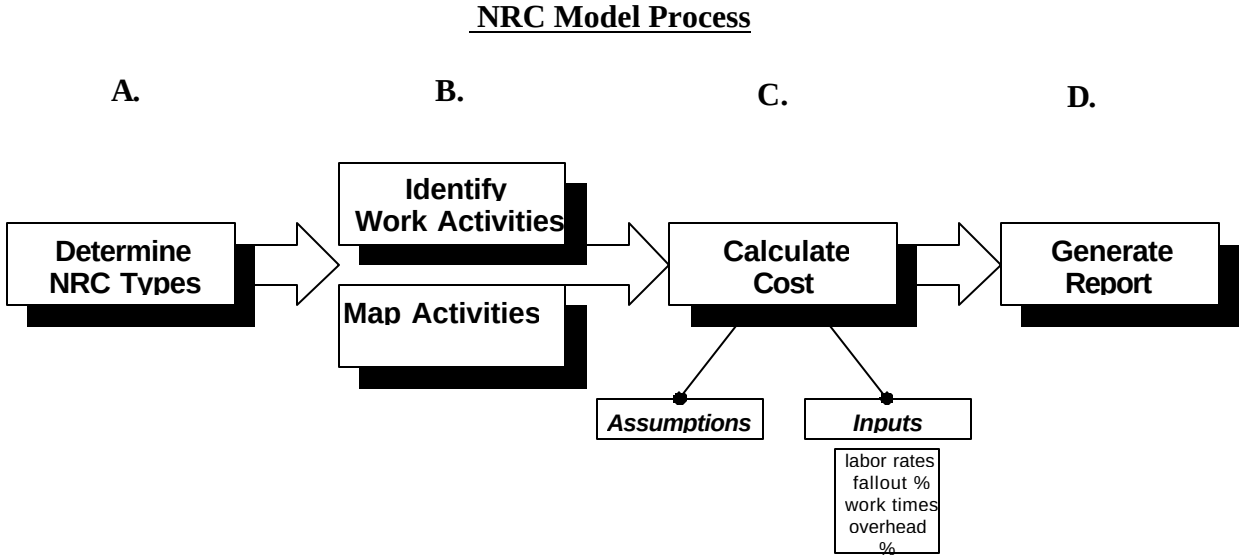
Description



In summary, the *NRC Model* provides a detailed step-by-step understanding of the systems required and the manual work activities performed by an ILEC in the ordering and provisioning of wholesale services and unbundled network elements. The model is designed to reflect the most efficient management and operations of existing ILEC OSSs.

II. METHODOLOGY

As shown by the following chart, the *NRC Model* develops costs in four distinct stages:



A. Determine Non-Recurring Cost Element Types:

The NRC element types that were initially selected for calculation by the model were developed based on a review of the charges proposed by ILECs during negotiation and

arbitration proceedings. These NRC element types consist primarily of functions performed in the provisioning of service to existing customers (migration)[1] and to new customers (installation)[2]. The following element types have been added to the NRCM (Version 2.2);

"DS1 Interoffice Transport Disconnect"

"DS3 Interoffice Transport Disconnect"

"DS3 Loop to Customer Premise Migration"

"DS3 Loop to Customer Premise Install"

"DS3 Loop to Customer Premise Disconnect"

The *Telecommunication Act of 1996* explicitly allows new entrants to provide local telecommunication services by means of various connectivity options. To the extent these options cause different costs to be incurred, such costs are modeled separately within the NRC Model. The local connectivity options include:

Total Services Resale (TSR): ILEC acts as a wholesaler of local telephone service which the CLEC then resells to end user customers.

Unbundled Network Elements Platform (UNE-P): CLEC purchases unbundled network elements in combination from the ILEC at cost-based rates.

Unbundled Network Elements (UNE): CLEC purchases individual unbundled network element(s), e.g., unbundled network element-loop (UNE-Loop), from an ILEC that may be used alone or in combination to provide telecommunication services to CLEC end user customers.

One example of an element type developed by the *NRC Model* is element type 3: "*POTS/ISDN BRI Migration (UNE Platform)"*. This element type represents the situation where an existing POTS or ISDN customer changes it's local service provider from an ILEC

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1 Migration is defined as moving existing ILEC customers to a CLEC.

2 Installation is defined as the establishment of service for a CLEC customer that is not currently served by an ILEC. Service may be for an existing or new customer premise.

to a CLEC, and the CLEC serves the customer by purchasing the unbundled network elements in combination (UNE-P).

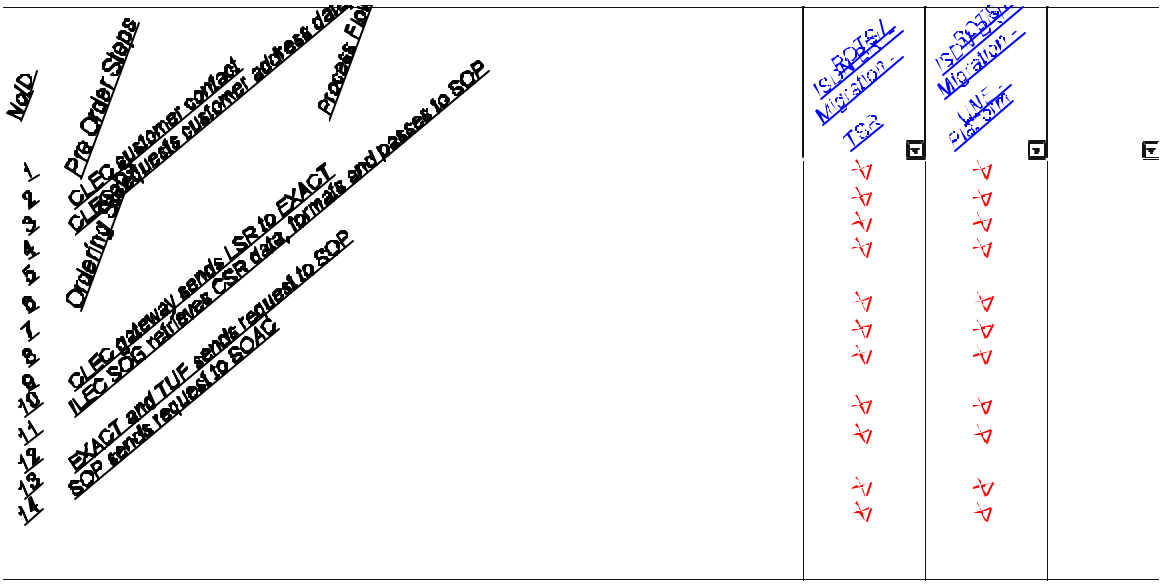
See **Attachment A** for a complete list of the NRC element types included in the model. Within the model, the user has the ability of either costing individual element types or batch processing a user selected list of element types all at once.

B. Identify and Map Activities:

The *NRC Model* identifies the individual systems utilized and manual work activities performed, when an ILEC provides a non-recurring service. These activities are considered generic for the ILEC and fall primarily within the pre-ordering, ordering and provisioning processes. There have been 225 steps identified and captured in the model (202 steps reflect work activities and the remaining 23 steps reflect categories in which these steps are grouped). See **Attachment B** for a complete list and description of the activities included in the model.

The model then maps the appropriate set of work activities to each NRC element type. For example, to migrate a POTS customer under the UNE-P option, requires nineteen identified work activities. The logic of the *NRC Model* maps these activities to the NRC element type through an assignment table contained on the "*Process & Calcs*" sheet of the *NRC Model*.

As demonstrated in the following table excerpt, activity assignment is made by the placement of an "X" at the table intersection of activity and NRC element type. (Note: while some activities are generic to many NRC element types, others are specific to only a few.)



When a user of the model chooses to cost out a particular NRC element type, the model selects the column corresponding to that NRC element type and looks for the activities that are required to be performed. If an "X" is shown, the activity in that row is required. In the table shown above, for example, a *POTS Migration* under the TSR connectivity option requires steps 2, 3, 4, 7, 8, 10, 13, and 14. (Note: this is only a sample of activities required for this element type). In addition, an "X" also appears in steps 1, 6, and 11 in order to display the specific categories the steps belong to.

For each activity described above, the model incorporates costing inputs. These inputs include the probability of the activity's occurrence, the time to complete the work activity, and the labor rate associated with the work activity. The model then calculates the cost of each individual activity based upon these inputs and model assumptions. For a complete list of the activity assignment table, see Attachment C.

C. Calculate Costs:

The third stage of the model calculates the cost of each activity and process. The *NRC Model* uses advanced features of Microsoft Excel 7.0 including Visual Basic for Applications (VBA) macros and dialog boxes. The User Guide, which is a separate document, contains additional information on how to run the model.

Through the use of "drop-down" input screens, the model provides the user with alternative input feeds that impact non-recurring service costs. These input screens include the following:

NRC Model - Control Panel: Prompts the user to select NRC element type and state.

Customize Batch: Allows the user to exclude elements from a Batch Run Scenario.

Manual Labor Rates: Prompts the user to either accept or override default values for the input labor rates.

Other NRC Model Inputs: Prompts the user to either accept or override default input values for the following *NRC Model* inputs. (Note: the Assumptions and Inputs of the model are described in more detail later in this document)

Copper Loop Percentage
Central Office Staffing Ratio (% of lines served via staffed central offices)
Average Trip Time

Non-Recurring Cost Model

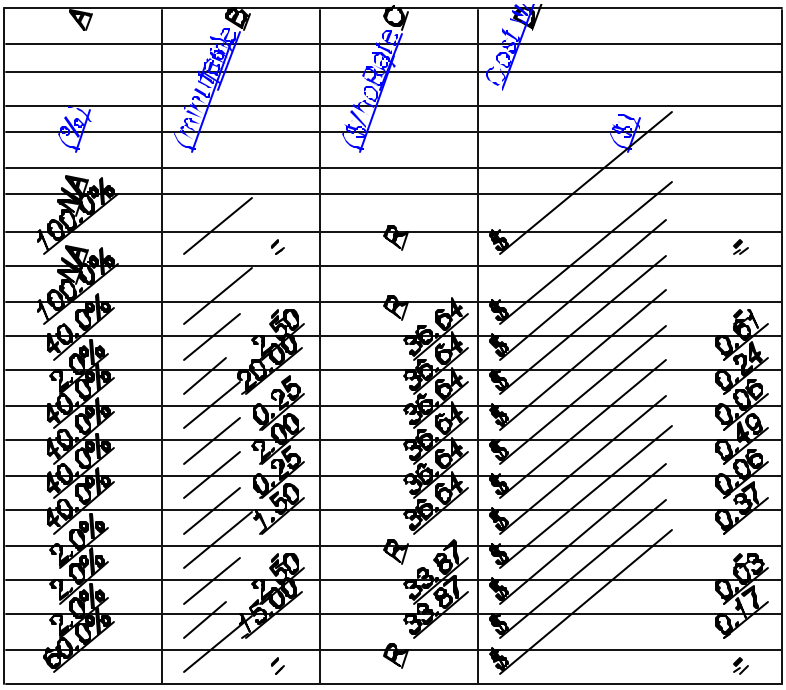
Description

Average Setup Time
Work Activities per Order (in central office)
Percentage Dedicated Facilities
Variable Overhead (%)
POTS System Fallout
Complex System Fallout

After the user has selected an element type, and has accepted or adjusted any of the default inputs, the model selects all of the activities associated with that particular non-recurring element type based upon the assignment table. Once these activities are selected, the model calculates the cost of each activity using the following formula:

Activity Cost = (Activity Probability (%) x Time (minutes)) x Rate ($ per hour) / 60

The chart below demonstrates how the model performs this step:



As reflected above, an assumption in the model is that forward looking OSS investments and system processing costs should be recovered in competitively neutral recurring rates as opposed to non-recurring rates. Therefore, the costs of these activities are set to zero by the placement of an "R" in the *Rate* input field.

Finally, the model sums the costs of all appropriate activities for each element type and then applies the user defined "overhead factor" to arrive at the total cost of providing the element.

D. Generate Results

After all calculations have been completed, the model populates the results into a table. NRC element types that are run individually are output by the model as follows:

When results are run in batch mode, the model outputs the cost of each NRC element type generated by the model in a single table.

III. Assumptions

This section provides a description of the general assumptions (technical and otherwise) used by the *NRC Model.*

A. Efficient Operations Support Systems

The *NRC Model* assumes the existence of OSSs which are operated efficiently by the ILEC. Such systems are automated and mechanized today, and should be capable of handling all movement of data electronically between other systems and databases.

The *NRC Model* OSSs are defined by the following minimum criteria:

All databases are updated on a timely basis, regularly maintained for maximum performance, and are consistent with each other

OSSs are appropriately sized and electronically linked

OSSs use front-end edits to minimize the possibility that erroneous information is entered

OSSs rely on the latest software releases and reside on high availability platforms

In addition, the environment in which the *NRC Model* OSSs are operated is defined by the following:

No network exhaustion is assumed
To the extent problems occur, the ILEC will pro-actively conduct a proper root cause analysis and will implement changes to eliminate the problem
CLECs will have access to these OSSs via an electronic interface
Work throughput is efficiently planned (i.e., POTS and ISDN BRI-type services should not be classified as designed circuits. Such a classification is unnecessary, does not mirror ILEC procedures, and drives up costs.)
Company personnel are adequately trained
The deployment of the latest data communications network technology

B. Recovery of Operations Support System Investment

The *NRC Model* assumes that the costs of the underlying OSSs (i.e., hardware, system software, and processor costs) should be recovered in the LEC's recurring wholesale and retail rates.

In general, OSSs are not developed or partitioned to support only one class of customer, such as a CLEC, nor are they established to support a particular set of functions, such as non-recurring functions. Instead, the architecture of OSSs today is designed to manage the totality of the LEC's telecommunication network, with individual systems and databases reliant on each other for optimal integrity.

In the FCC's order in Docket 96-325, a recurring cost was defined as one that is incurred periodically overtime.[3] OSS development is predicated on the assumption that the OSS will have a life-span of several years. To properly recover this investment in a one-time charge would require a precise present value calculation to prevent over or under recovery of this cost. However, the FCC has found that, "in practice, the present value of the recurring costs cannot

[3] FCC Order 96-325, paragraph 745. First Report And Order - Released: August 8, 1996

be calculated with sufficient accuracy to warrant up-front recovery of these costs".[4]

The FCC has concluded that:
"imposing non-recurring charges for recurring costs could pose a barrier to entry because these charges may be excessive, reflecting costs that may (1) not actually occur, (2) be incurred later than predicted; (3) not be incurred as long as predicted; (4) be incurred at a level that is lower than predicted; (5) be incurred less frequently than predicted; and (6) be discounted to the present using a cost of capital that is too low."[5]

Further, OSS investments, like switching and loop investments, produce long term assets, the recovery of which should, like the recovery of switching and loop costs, be amortized over the life of those assets.

C. Electronic Fallout

Fallout refers to errors in an electronic flow-through process. For example, in an electronic ordering process, if one of the OSSs receives erroneous or incompatible information from another OSS, the order will "fallout" of the electronic process and may require manual intervention to correct or complete the order.

Fallout is important because in many instances it is the only cost-driver for an otherwise seamless electronic flow-through process. In the absence of fallout, many processes would only have systems processing costs, costs which should be recovered via competitively neutral recurring rates.

There are four major categories of electronic fallout.
1.Database synchronization errors
2.Network element denial
3.Communication errors
4.Synchronization Errors

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4 Ibid., paragraph 746.

5 Ibid., paragraph 747.

Database synchronization errors occur when databases that contain identical data do not match, or they disagree as to the availability or status of a needed resource. Typical database synchronization errors that fallout include street names that exist in one database that are not duplicated in other databases. Another example is when facilities marked as 'spare' in one database are not reflected as available in another database.

Network element denial is a second type of fallout. It can happen when an Intelligent Network Element (INE), such as a Local Digital Switch, responds that it cannot perform a task requested by another component of the network for whatever reason. For example, the element management system might believe that a certain version of software is available to activate certain features, when in reality the installation of this software has not yet been performed.

Communication errors represent the failure of the communication links between OSS, the Element Management Systems (EMS), and/or the INE. These errors take place because a valid communication path cannot be found between the elements.

Synchronization errors occur when two separate components (OSS to OSS or OSS to EMS & INE) attempt to communicate, but fail to establish the necessary communications protocols, even though the link is functioning.

Of the four categories of fallout, the error that occurs most often is database synchronization error. The degree of fallout from these four categories can and should be minimized by properly maintaining the OSS databases and the telecommunication network.

In determining the input values for fallout, in both a simple (POTS) and complex environment, the NRC Model draws upon industry experience and comparable industry information[6]. Relying on the assumption of efficiently operated OSSs and processes, the default fallout rate

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[6] Southwestern Bell recently indicated in its Texas filing that their EASE system, which services residential lines, has a fallout rate of 1% (transcripts; Open Meeting Prehearing Conference- 6/24/97- Southwestern Bell before the P.U.C. and A.L.J.) In addition, US West states in a cost study filed before the Minnesota Public Service Commission on 7/11/97 that "97% of all CSB PIC Changes are completely mechanized."

utilized in the NRC Model is 2%. This is further supported in Bellcore GR-22869, where according to Section 4.6.2 (Immediate Service Activation) "Activation will occur at the time of assignment"(i.e., immediately)[7]. This variable is user adjustable for both POTS and complex fallout.

D. Labor Rates

The labor rates used by the *NRC Model* represent a fully assigned rate, which includes wages and benefits for first-line supervision through third level management. In addition, the labor rate accounts for non-productive time, overtime pay, clerical support and other miscellaneous expenses. Finally, labor rates have been developed and applied for 14 different job classifications in order to account for the varying levels of labor costs incurred by different work centers and process activities.

When available, union contract labor rates are used as the foundation for developing the appropriate rates. Since data was not readily available to derive average rates by adjusting for pay zones and wage progression, the top pay zone represented by the union contract for each state is used for all rates, thereby assuming that the entire work force is at the maximum rate within their pay band.

The particular job classifications used in the *NRC Model* were identified by reviewing individual work activities included in the model. This information, when combined with knowledge of job descriptions, job function codes, union contracts and information drawn from publicly available cost studies, enabled the identification of the following technical titles to be used in the model:

Business Dispatch Administration Center (BDAC)

Consumer Dispatch Administration Center (CDAC)

Circuit Provisioning Center (CPC)

Customer Service Center (CSC)

Frame Control Center (FCC)

[7] Bellcore GR-2869, Issue 2, (Oct. 1996) pg. 4-25, section 4.6.2

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Facility Maintenance Administration Center (FMAC)

Special Services Installation & Maintenance / Outside Plant (S S I&M / OSP)

Loop Assignment Center (LAC)

Network Terminal Equipment Center (NTEC)

Recent Change Memory Administration Center (RCMAC)

Switching Control Center (SCC)

Special Service Center (SSC)

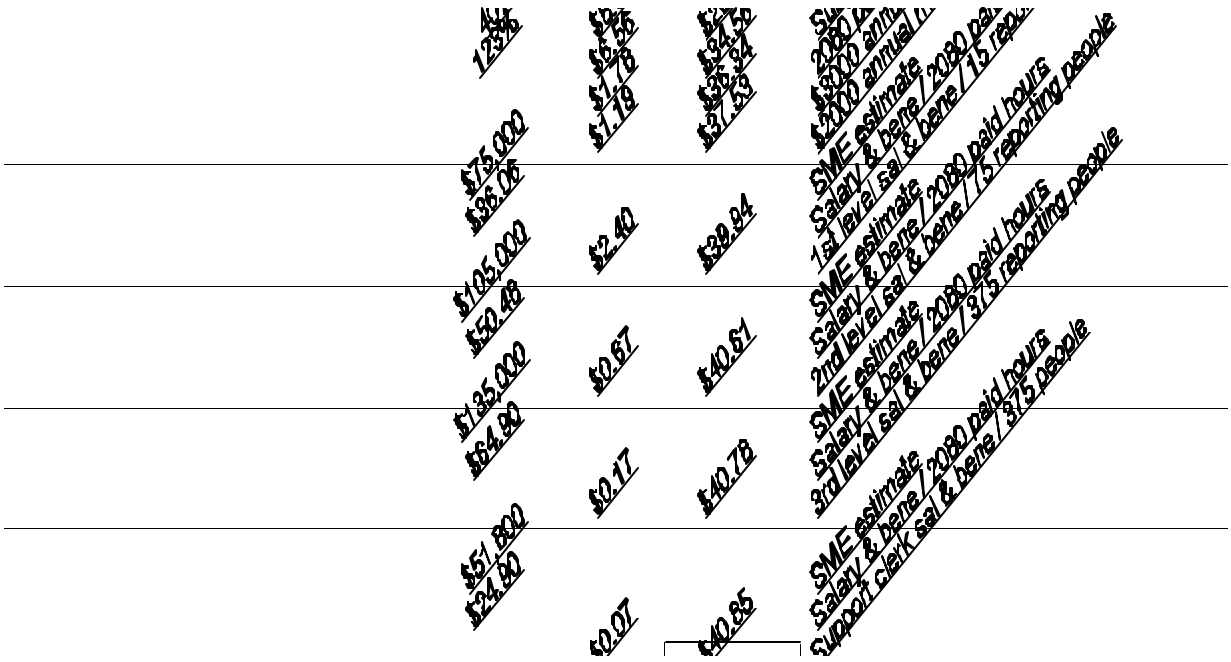
Splicing

InterLata Carrier Service Center (ICSC)

Publicly available cost models suggest that benefits generally equate to approximately a 33%-35% increase over the contract labor rates. The *NRC Model* uses a 40% benefits loading to provide a conservatively high cost estimate. The first through third level management salaries and benefits were calculated and loaded on to the labor rates based on a ratio of 15:1 for contract to supervisory personnel, and 5:1 for the next two layers of management. The salary and benefits for one clerical position were also incorporated.

The loaded hourly rates were inflated by 23% to represent productive hourly rates. This includes paid time off for vacations, holidays, personal days, training, coffee breaks, etc. Miscellaneous expenses were added to cover such items as travel expense, training, and office supplies. Finally, another increment was added to cover premium pay for overtime worked.

Provided below is an example of the labor rate calculation.



E. Work Times

Work time estimates are associated with various activities. The work time estimate is the average amount of time required to perform a particular work function. These work time estimates were obtained from a panel of subject matter experts or other sources and are included in the technical description for each element type.

The estimated work times contained within the *NRCM* incorporate the following underlying assumptions and can be found in Attachment 'B':

The person performing the work is fully trained.
All tools, test sets and material are readily available.
Work operations are based on forward looking technologies and management processes.

F. Probabilities

A probability represents the percentage of time a particular work function/activity is performed when processing a particular service offering. For example, if 20% of the lines are served by non staffed central offices, the probability of travel time would also be 20%.

Probability factors are utilized in the formulation of Activity Costs as follows:

ACTIVITY COST = PROBABILITY (%) X TIME (MIN) X LABOR RATE ($) / 60 (MIN)

Attachment 'B' provides probability factor details and the associated formula for each task or activity used in the Model

Each of the activities or events in the Model could occur in a service delivery process to some degree or not at all. Therefore you will see probabilities ranging from 0-100%, or designated N/A, where an activity is part of the overall process but because it is performed by the CLEC or is a CLEC system activity, it is not part of the ILEC Activity Cost calculation.

G. Dedicated Facilities

The *NRC Model* assumes dedicated facilities exist in the plant, both inside (Dedicated Inside Plant-DIP) and outside (Dedicated Outside Plant-DOP). Long standing practices have demonstrated that it is more cost efficient to commit facilities ahead of time to facilitate rapid service activation. This is accomplished during the construction phase (i.e., building of the plant). Anticipated living units are assigned facilities in the inventory systems such as LFACS and SWITCH. The inventory systems are updated to reflect this commitment.

When customers move from one location, it is assumed that in time another customer will move into the same location. Therefore, the "disconnect" of a service is in reality a "deactivation" of service to a particular living unit, (i.e., no physical work is performed).

H. Testing

For the TSR and UNE-P local market entry scenarios, the *NRC Model* assumes that all testing will be performed by the ILEC and that the cost of this testing is recovered through recurring rates. In addition, the *NRC Model* assumes that the CLEC will be responsible for the testing of customer loops once the customer is terminated on the CLEC switch. Problems reported by the customer could be verified and located using the new entrant's Mechanized Loop Testing system (MLT). If the problem was in the new entrant's equipment the new entrant would repair it. If the trouble was determined to be outside of the new entrant's local switch and collocated equipment, it would be referred to the ILEC. Any other information that would be required by the ILEC could be obtained from the new entrant's test center.

In addition, it is assumed that special service circuits will be tested prior to "turn-up". These costs have been accounted for in the *NRC Model*.

IV. Data Inputs

This section provides a description of the data inputs used by the *NRC Model.*

A. Input Fields

1. NRC Element type

This input variable allows the user to cost out individual NRC element types. There are 49 element types to select from (see Attachment A). It is expected that other element types will be added in the future.

2. State Selection

The user is able to choose a state jurisdiction to model. State selection is intended to drive the appropriate labor rates for that particular state.

3. Manual Labor Rates ($ per hour)

When the state selection is made, the model provides an input screen containing the labor rates for that particular run. This screen can be used to modify the default labor rates contained in the model.

4. Copper Loop Percentage

This represents the percent of lines served by straight copper as opposed to lines served by fiber (i.e., Integrated Digital Loop Carrier). The model default is 40% copper. The significance of this variable is that there are additional work steps associated with copper plant. This ratio can be user adjusted .

5. Central Office Staffed Ratio

This input variable represents the number of lines in a state that are served out of central offices which have technicians on site. The significance of this variable is that additional travel time and cost is required in order to do work in those offices that are not normally staffed. For example, service orders may require a technician to be dispatched for work to be completed at a non staffed office. As the default ratio, the NRC Model assumes that 80% of the lines in a state are served by staffed central offices.

6. Average Trip Time

This variable accounts for the travel time of a technician. These technicians may need to periodically make trips to the field to rearrange outside plant, or will need to travel to the non-staffed central offices to complete various work activities such as customer orders, on-going maintenance, etc. The Work Management OSS will schedule and develop the work load and activities for the traveling technicians. Thus, the travel time is associated with several work activities, not just one. The default value contained in the NRC Model for the travel time is 20 minutes.

7. Average Setup Time

This user adjustable variable accounts, as an example, for the time associated with setting up cones while working at the Feeder Distribution Interface (FDI) or the Service Area Interface (SAI). A default value of 10 minutes is used in the Model.

8. Number of Work Activities Per Order (central office)

The average number of work activities is set at four. The default assumption is that the technician will complete four work activities.

9. Percentage Dedicated Facilities

This input represents the percentage of dedicated facilities for POTS type service. A default of 100% is used in the model. As indicated in the model by an "R," any cost associated with dedicated facilities should be recovered via recurring rate elements.

10. Variable Overhead (%)

This input represents the loading variable overhead expenses not already captured in the model. The default is 10.4% and is derived from Hatfield Model support documentation.

Non-Recurring Element Types

- POTS / ISDN BRI Migration (TSR)
- POTS / ISDN BRI Install (TSR)
- POTS / ISDN BRI Migration (UNE Platform)
- POTS / ISDN BRI Install (UNE Platform)
- POTS / ISDN BRI Disconnect (TSR / UNE Platform)
- POTS / ISDN BRI Migration (UNE Loop)
- POTS / ISDN BRI Install (UNE Loop)
- POTS / ISDN BRI Disconnect (UNE Loop)
- Feature Changes
- 4 Wire Migration (UNE Loop)
- 4 Wire Install (UNE Loop)
- 4 Wire Disconnect (UNE Loop)
- 2 Wire Migration at the FDI
- 2 Wire Disconnect at the FDI
- 4 Wire Migration at the FDI
- 4 Wire Disconnect at the FDI
- 2 Wire Migration at 6 line NID
- Channelized DS1 Virtual Feeder to RT Install
- Channelized DS1 Virtual Feeder to RT Disconnect
- DS1 Interoffice Transport Install
- DS1 Interoffice Transport Disconnect
- DS3 Interoffice Transport
- DS3 Interoffice Transport Disconnect
- 2 Wire Loop, different CO Migration
- 2 Wire Loop, different CO Install
- 2 Wire Loop, different CO Disconnect
- 4 Wire Loop, different CO Migration
- 4 Wire Loop, different CO Install
- 4 Wire Loop, different CO Disconnect
- DS1 Loop to Customer Premise Migration
- DS1 Loop to Customer Premise Install
- DS1 Loop to Customer Premise Disconnect
- DS3 Loop to Customer Premise Migration
- DS3 Loop to Customer Premise Install
- DS3 Loop to Customer Premise Disconnect
- Line Port (DS0, Analog, ISLU) Install
- Line Port (DS0, Analog, ISLU) Disconnect

Channelized DS1 Line Port (TR-303-IDT) Install
Channelized DS1 Line Port (TR-303-IDT) Disconnect
Fiber Cross Connects Install (LGX)
Fiber Disconnect (LGX)
SS7 Links (DS0) Install
SS7 Links (DS0) Disconnect
SS7 Links (DS1) Install
SS7 Links (DS1) Disconnect
SS7 STP global title translations ‘A Link’ only Install
SS7 STP global title translations ‘A Link’ only Disconnect
SS7 STP message transfer part ‘A Link’ only (port) Install
SS7 STP message transfer part ‘A Link’ only (port) Disconnect

Legend: **NA** (not applicable) refers to activities performed by the CLEC or where there is no applicability to the column.
R refers to the costs of activities that are recovered elsewhere (i.e. other than non-recurring) such as recurring costs.

NRC Model
Activity Descriptions

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
1	**PRE-ORDER STEPS**				
2	CLEC customer contact	Customer service representative obtains the service address, customer name, and customer service requests.	NA	NA	NA

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
3	CLEC requests customer address data, CSR, and appointment from ILEC	CLEC representative requests service address information from the customer and then inputs that information into the gateway to confirm that the service address is listed in the ILEC's databases. For migrating customers, the CLEC also requests additional customer information that is found in the Customer Service Record which is stored by the ILEC.	NA	NA	NA
4	ILEC gateway requests address data from Administrative Information System and CSR	The gateway processes the CLEC service request by obtaining Customer Service Record information from the Administrative Information System.	100%	-	

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
5	ILEC gateway formats & returns address, CSR, and appointment data to CLEC	The gateway passes address verification and CSR information back to CLEC.	100%	-	
6	**ORDERING STEPS**				
7	CLEC customer service representative inputs LSR information into LOS	CLEC creates Local Service Request (LSR) from information gathered from the customer and ILEC CSR (if available).	NA	NA	NA

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
8	ILEC gateway receives, validates and logs LSR, returns FOC, and passes LSR to SOG	The gateway receives, validates and logs the Local Service Request (LSR). At this point, if erroneous information was input into the LSR, the gateway would return the order to a CLEC service representative who would have to correct, then re-input the order. If the order is valid, the ILEC confirms that the order is complete by sending the CLEC a Firm Order Commitment to the CLEC. The ILEC then passes the LSR back to its Service Order Generator (SOG) for further down-stream processing.	100.0%	-	
9	CLEC gateway sends LSR to EXACT	EXACT validates service order request and transmits to TUF.	100%	-	

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
10	ILEC SOG retrieves CSR data, formats and passes to SOP	The ILEC's SOG receives the LSR data from the gateway and generates a service order (e.g., formats the LSR data into a service order) which is passed to the Service Order Processor (SOP) for processing.	100%	-	
11	**PROVISIONING PROCESSING STEPS**				
12	EXACT and TUF sends request to SOP	TUF is the OSS which translates the USOCs and FIDs that are required; then sends to the ILEC SOP.	100%	-	

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
13	SOP sends request to SOAC	The ILEC Service Order Processor receives a service order and passes the service order to the SOAC-like system. If the service order is not properly formatted, SOAC will send the service order back to an ILEC service rep for correction.	100%	-	
14	SOAC analyzes order, generates assignment requests for OSP, COE, IOF, etc.	SOAC analyzes the service order and sends assignment request to the inventory systems e.g., LFACS, SWITCH, and TIRKS	100%	-	
15	SOAC analyzes order, generates assignment requests for COE and IOF, etc.	SOAC analyzes the service order and sends assignment request to the inventory systems e.g., SWITCH, and TIRKS	100%	-	
16	LFACS makes OSP assignments, e.g., cable and pair	LFACS commits OSP facilities for the assignment request and then sends back to SOAC.	100%	-	

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
17	LFACS makes OSP spare and available for reassignments, e.g., cable and pair	LFACS spares up OSP facilities for re-assignment.	100%	-	
18	SWITCH provides equipment and facility assignments	SWITCH commits central office equipment for the assignment request and then sends it back to SOAC.	100%	-	
19	SWITCH inventories as spare and shows available for re-assignment (equipment and facility)	SWITCH spares up central office equipment for the reassignment	100%	-	
20	SOAC receives COE, OSP, IOF, etc.	SOAC receives information back from LFACS, SWITCH, and TIRKS.	100%	-	

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
21	SOAC receives COE and IOF, etc.	SOAC re-assembles the pieces of information and formulates the customer vertical features (call forwarding, call waiting, etc.) based on customer service demands which are recorded in USOCs and FIDs. SOAC then forwards this information to MARCH.	100%	-	
22	COSMOS / SWITCH assigns OE	COSMOS/SWITCH commits central office equipment for the assignment request and then sends it back to SOAC.	=Copper_Percent	-	
23	COSMOS / SWITCH removes OE	COSMOS/SWITCH spares up central office equipment for the reassignment	=Copper_Percent	-	
24	SWITCH assigns IDT port	SWITCH commits LDS ports	=Fiber_Percent	-	
25	SWITCH assigns call reference values (CRV)	CPU processing time	100%	-	

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
26	SWITCH deletes call reference values (CRV)	CPU processing time	100%	-	
27	SOAC delivers recent change translation information	SOAC re-assembles the pieces of information and formulates the customer vertical features (call forwarding, call waiting, etc.) based on customer service demands which are recorded in USOCs and FIDs. SOAC then forwards this information to MARCH.	100%	-	
28	SOAC delivers recent change disconnect information	SOAC notifies MARCH of disconnect	100%	-	
29	MARCH updates LDS	MARCH updates the Local Digital Switch (LDS) with information about the features and services that the customer has requested.	100%	-	

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
30	SOAC delivers equipment and facility information	TIRKS transmits a formatted electronic "word document" which contains the assignment	=Fiber_Percent	-	
31	SOAC delivers equipment and facility information to NSDB (100%)	TIRKS transmits a formatted electronic "word document" which contains the assignment and other information to the Network and Services Database and to the Work Force Administration Control	100%	-	
32	NSDB downloads assignments to OPS/INE	NSDB stores active record and passes the appropriate assignments to Operations Systems/Intelligent Network Elements (OPS/INE). OPS/INE takes the information from NSDB and updates specific INE's.	=Fiber_Percent	-	

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
33	NSDB downloads assignments to OPS/INE	NSDB stores active record and passes the appropriate assignments to Operations Systems/Intelligent Network Elements (OPS/INE). OPS/INE takes the information from NSDB and updates specific INE's.	100%	-	
34	OPS/INE delivers cross connect and equipment provisioning message to INE	Operations Systems sends a message to the actual Intelligent Network Element and tells it to make certain changes to establish a circuit.	=Fiber_Percent	-	
35	OPS/INE delivers cross connect and equipment provisioning message to INE	Operations Systems sends a message to the actual Intelligent Network Element and tells it to make certain changes to establish a circuit.	100%	-	

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
36	OPS/INE delivers disconnect message to INE	After the INE has been updated, the INE sends a positive acknowledgment back to OPS/INE which then forwards this acknowledgment back to WFA/C.	=Fiber_Percent	-	
37	OPS/INE delivers disconnect message to INE	After the INE has been updated, the INE sends a positive acknowledgment back to OPS/INE which then forwards this acknowledgment back to WFA/C.	100%	-	
38	OPS/INE updates WFA/C	After the INE has been updated, the INE sends a positive acknowledgment back to WFA/C.	=Fiber_Percent	-	
39	OPS/INE updates WFA/C	After the INE has been updated, the INE sends a positive acknowledgment back to WFA/C.	100%	-	

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
40	WFA/C updates NSDB	WFA/C forwards acknowledgment received from INE back to NSDB.	=Fiber_Percent	-	
41	WFA/C updates NSDB	WFA/C forwards acknowledgment received from INE back to NSDB.	100%	-	
42	PICS sends plug-in assignments to TIRKS	PICS sends correct plug- in to TIRKS for specific service	100%		
43	TIRKS provides equipment and facility assignments	TIRKS receives request from SOAC for trunk and high capacity service information. TIRKS inventories equipment and assigns the required resources to S.O. This step is only performed for special services, interoffice facilities, high capacity services, etc.	100%	-	

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
44	TIRKS inventories as spare and shows available for re-assignment (equipment and facility)	TIRKS spares up equipment and facilities to allow for reassignment	100%	-	
45	TIRKS updates SOAC	After TIRKS has assigned equipment, it sends an assignment completion status to SOAC and forwards an electronic "word document" to WFA/DI (DO) and NSDB.	100%	-	
46	CPU time for NMA for PM data from test	NMA monitors certain network elements for reliability purposes	100%	-	
47	**PULL AND ANALYZE ORDER STEPS**				
48	Pull and analyze order: FCC; (copper %)	Technician in the CO prints and analyzes the order	=Copper_Percent	2.50	FCC

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
49	Pull and analyze order: FCC; (copper %*(%_Non_Dedicated))	Technician in the CO prints and analyzes the order	=Copper_Percent*Percent_Non_Dedicated	2.50	FCC
50	Pull and analyze order: FMAC	Technician in the CO prints and analyzes the order	100%	2.50	FMAC
51	Pull and analyze order: SS I & M/OSP	Installation Technician prints and analyzes the order	100%	2.50	SS I&M/OSP
52	Pull and analyze order: NTEC; (copper %)	Technician in the CO prints and analyzes the order	=Copper_Percent	2.50	NTEC
53	Pull and analyze order: NTEC	Technician in the CO prints and analyzes the order	100%	2.50	NTEC
54	Pull and analyze order: SSC	Technician in the SSC analyzes the order	100%	2.50	SSC
55	**TRAVEL TIME STEPS**				

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
56	Travel time to the central office: CO Unstaffed, # Orders per Trip, Copper	When a CO is **not** staffed a technician must be dispatched to the CO (assumes the technician will perform a # of functions at the same CO)	=CO_Non_Staffed/Number_of_Orders_Per_Trip*Copper_Percent	20.00	FCC
57	Travel time to the central office: CO Unstaffed, # Orders per Trip, Copper , %_Non_ Dedicated	When a CO is **not** staffed a technician must be dispatched to the CO (assumes the technician will perform a # of functions at the same CO)	=CO_Non_Staffed/Number_of_Orders_Per_Trip*Copper_Percent*Percent_Non_Dedicated	20.00	FCC
58	Travel time to the central office: CO Unstaffed, # Orders per Trip	When a CO is **not** staffed a technician must be dispatched to the CO (assumes the technician will perform a # of functions at the same CO)	=CO_Non_Staffed/Number_of_Orders_Per_Trip	20.00	FMAC
59	Travel time to the central office: CO Unstaffed, # Orders per Trip: "R"	When a CO is **not** staffed a technician must be dispatched to the CO (assumes the technician will perform a # of functions at the same CO)	=CO_Non_Staffed/Number_of_Orders_Per_Trip	20.00	FMAC

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
60	Travel time to the central office: CO Non Staffed/ Orders per Trip* Copper %	When a CO is **not** staffed a technician must be dispatched to the CO (assumes the technician will perform a # of functions at the same CO)	=CO_Non_Staffed/Number_of_Orders_Per_Trip*Copper_Percent	20.00	FMAC
61	Travel time to the central office: CO Non Staffed/ Orders per Trip* Copper %	When a CO is **not** staffed a technician must be dispatched to the CO (assumes the technician will perform a # of functions at the same CO)	=CO_Non_Staffed/Number_of_Orders_Per_Trip*Copper_Percent	20.00	NTEC
62	Travel time to the central office: CO Non Staffed/ Orders per Trip* Copper %: "R"	When a CO is **not** staffed a technician must be dispatched to the CO (assumes the technician will perform a # of functions at the same CO)	=CO_Non_Staffed/Number_of_Orders_Per_Trip*Copper_Percent	20.00	NTEC
63	Travel time to the central office: CO Non Staffed/ Orders per Trip* Copper %	When a CO is **not** staffed a technician must be dispatched to the CO (assumes the technician will perform a # of functions at the same CO)	=CO_Non_Staffed/Number_of_Orders_Per_Trip*Copper_Percent	20.00	NTEC

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
64	Travel time within the staffed central office: CO Staffed/ # Orders per Trip* Copper %	This time includes moving from floor to floor within the same building	=CO_Staffed/Number_of_Orders_Per_Trip*Copper_Percent	10.00	NTEC
65	Travel time within the staffed central office: CO Staffed/ # Orders per Trip* Copper %: "R"	This time includes moving from floor to floor within the same building	=CO_Staffed/Number_of_Orders_Per_Trip*Copper_Percent	10.00	NTEC
66	Travel time within the staffed central office: CO Staffed/ # Orders per Trip* Copper %	FMAC technicians go from frame to frame which are located on different floors of the same building	=CO_Staffed/Number_of_Orders_Per_Trip*Copper_Percent	10.00	FMAC
67	Travel time within the staffed central office: CO Staffed/ # Orders per Trip	FMAC technicians go from frame to frame which are located on different floors of the same building	=CO_Staffed/Number_of_Orders_Per_Trip	10.00	FMAC
68	Travel time to FDI / 2 work activities	This includes the time to travel to the FDI	50%	20.00	SS I&M /OSP

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
69	Travel time to FDI / 1 work activities	This includes the time to travel to the FDI	100%	20.00	SS I&M /OSP
70	Travel time to customer premises / 1 work activity	This is the time to travel to the customers location	100%	20.00	SS I&M /OSP
71	**ELEMENT TYPE DETAIL STEPS**				
72	**2 WIRE LOOP: Copper**				
73	Perform continuity test (check dial tone and ANI)	Before disconnecting from ILEC switch, test for accurate TN.	=Copper_Percent	0.25	FCC
74	Install cross connect from MDF to CFA appearance	Frame technician runs cross connect in CO	=Copper_Percent	1.00	FCC
75	Install cross connect from MDF to CFA appearance	Frame technician runs cross connect in CO	=Copper_Percent*Percent_Non_Dedicated	1.00	FCC
76	Perform continuity test (check dial tone and ANI)	After running new Cross Connect perform continuity test and ANI.	=Copper_Percent	0.25	FCC

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
77	ILEC MLT test and or ISTF test	ILEC performs MLT and ISTF test	=Copper_Percent		
78	CLEC MLT test and or ISTF test	CLEC performs it's own MLT and ISTF test	NA	NA	NA
79	Remove jumper from MDF	Frame technician removes cross connect jumper that connects to ILEC switch	=Copper_Percent	0.50	FCC
80	Remove jumper from MDF	Frame technician removes cross connect jumper that connects to ILEC switch	=Copper_Percent	0.50	FCC
81	**2 WIRE LOOP: IDLC (GR-303)**				
82	Install DSO TSI at RT (CPU time)	This is CPU time only and is done by OPS/INE to the INE at the RT	=Fiber_Percent	-	
83	NCTE installation and testing	ILEC I&M Technician tests circuit	100%	2.00	
84	Remove DSO TSI at RT (CPU Time)	This is CPU time only and is done by OPS/INE to the INE at the RT	=Fiber_Percent	-	

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
85	**CHANNELIZED DS1 CAPACITY FOR THE VRT (TR-303)**				
86	Install IDT line port card	Place card in LDS	100%	2.00	SCC
87	Install DSX cross connect (5 Wire)	Technician places the 5 wire cross connect at the DSX frame in the CO to the CLEC collocation.	100%	10.00	FMAC
88	Perform remote quasi random signaling source (QRSS) test via remote ITS - DTAU	TL1 command sent from ITS	100%	5.00	FMAC
89	Remove DSX cross connect (5 Wire)	Technician removes the 5 wire cross connect at the DSX frame	100%	10.00	FMAC
90	CPU time at SONET MUX (DS1)	This is CPU time only and is done by OPS/INE in the CO	100%		

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
91	CPU time at RT (DS1 TSI)	This is CPU time only and is done by OPS/INE at the RT	100%		
92	Perform remote quasi random signaling source (QRSS) test via remote ITS-DTAU	TL1 command sent from ITS	100%	5.00	FMAC
93	CPU Time at SONET MUX (DS1)	This is CPU time only and is done by OPS/INE in the CO	100%		
94	CPU Time at RT (DS1 TSI)	This is CPU time only and is done by OPS/INE at the RT	100%		
95	Remove DSX cross connect (5 Wire)	Technician removes the 5 wire cross connect jumper at the DSX frame in the CO	100%	10.00	FMAC
96	**FIBER CROSS CONNECT**				
97	Install 2 Fiber cross connects at LGX (2 min X 2 Fiber cross connects at LGX)	This functions is performed by FMAC Technician.	100%	4.00	FMAC

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
98	Remove 2 Fiber cross connects at LGX (2 min X 2 Fiber cross connects at LGX)	This function is performed by FMAC Technician.	100%	4.00	FMAC
99	OTDR (Optical Time Domain Reflecometer) testing using Fiber Check 5000 type system	This function is performed when a fiber cross connect is tested. NMA/ITS CPU Time	100%		
100	**2 WIRE CROSS CONNECT AT THE FDI**	The 2 wire Cross Connect that is done at the Feeder Distribution Interface			
101	Setup time / 2 work activities	This includes setting safety cones, opening FDI, getting required tools	50%	10.00	SS I&M /OSP
102	Perform continuity test for ILEC	This test is done to insure that the correct Cross Connects are identified	100%	0.25	SS I&M /OSP

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
103	Install cross connect (Binding Post)	Perform Cross Connect functions using Binding Posts	100%	2.00	SS I&M /OSP
104	Tear down setup / 2 work activities	This function is performed by the Installation Technician and entails closing the Cross Connect box, replacing tools, and collecting safety cones	50%	10.00	SS I&M /OSP
105	Setup time / 2 work activities	This includes setting safety cones, opening FDI, getting required tools	50%	10.00	SS I&M /OSP
106	Perform continuity test for ILEC	When the Cross Connect is completed, a continuity test is performed	100%	0.25	SS I&M /OSP
107	Remove existing cross connect (Binding Post)	Disconnect performed at Binding Post	100%	1.00	SS I&M /OSP
108	Tear down setup / 2 work activities	This function is performed by the Installation Technician and entails closing the Cross Connect box replacing tools and collecting safety cones	50%	10.00	SS I&M /OSP

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
109	**4 WIRE CROSS CONNECT AT THE FDI**	The 4 wire Cross Connect that is done at the Feeder Distribution Interface by the Installation Technician			
110	Negotiate customer release (CLEC to ILEC)	SSC contacts the customer (CLEC) to negotiate a time when service can be interrupted.	100%	15.00	SSC
111	Setup time / 1 work activity	This includes setting safety cones, opening FDI, getting required tools	100%	10.00	SS I&M /OSP
112	Install cross connect (Binding Post)	This is connecting a Cross Connect at the FDI	100%	4.00	SS I&M /OSP
113	Tear down setup / 1 work activity	This function is performed by the Installation Technician and entails closing the Cross Connect box replacing tools and collecting safety cones	100%	10.00	SS I&M /OSP
114	Remove SMAS (wire wrap)	CO technician performs wire wrap disconnects in order to disconnect the SMAS points	=Copper_Percent	6.00	NTEC

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
115	Remove cross connect from MDF (Cosmic-like frame, e.g. punch down, 2 four wire)	Frame technician removes cross connect jumper that connects to ILEC switch	=Copper_Percent	2.00	NTEC
116	Setup time / 2 work activities	This includes setting safety cones, opening FDI, getting required tools	50%	10.00	SS I&M /OSP
117	Remove existing cross connect (Binding Post)	Disconnect performed at Binding Post	100%	4.00	SS I&M /OSP
118	Tear down setup / 2 work activities	This function is performed by the Installation Technician and entails closing the Cross Connect box replacing tools and collecting safety cones	50%	10.00	SS I&M /OSP
119	**4 WIRE LOOP and OTHER DESIGNED SERVICES**				

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
120	Negotiate customer release (CLEC to ILEC)	SSC contacts the customer (CLEC) to negotiate a time when service can be interrupted	100%	15.00	SSC
121	Monitor circuit for traffic busy and correct assignment	NTEC technician bridges on circuit to insure no traffic on line and that the correct line is being worked on	=Copper_Percent	1.00	NTEC
122	Monitor circuit for traffic busy and correct assignment	FMAC technician bridges on circuit to insure no traffic on line and that the correct line is being worked on	100%	1.00	FMAC
123	NTEC contacts SSC to verify valid disconnect	NTEC technician contacts the SSC to ensure that the circuit is ready for disconnect	=Copper_Percent	1.50	NTEC
124	SS I&M OSP contacts SSC to verify valid disconnect	S S I&M / OSP technician contacts the SSC to ensure that the circuit is ready for disconnect	100%	1.50	SS I&M /OSP

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
125	Install cross connect MDF (COSMIC-like frame, e.g. punch-down, 1 four wire jumper)	NTEC technician runs cross connect in CO	=Copper_Percent	2.00	NTEC
126	Remove cross connect MDF (COSMIC-like frame, e.g. punch-down, 1 four wire jumper)	NTEC technician disconnects jumper in CO	=Copper_Percent	1.00	NTEC
127	Install cross connect MDF (COSMIC-like frame, e.g. punch-down, 2 four wire jumpers)	NTEC technician runs cross connect in CO	=Copper_Percent	4.00	NTEC
128	Remove cross connect MDF (COSMIC-like frame, e.g. punch-down, 2 four wire jumpers)	NTEC technician disconnects jumper in CO	=Copper_Percent	2.00	NTEC

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
129	Perform continuity test (check dial tone and ANI)	When the Cross Connect is completed, a continuity test is performed	=Copper_Percent	0.25	NTEC
130	Install cross connect MDF (COSMIC-like frame, e.g. punch-down, 2 wire jumpers)	NTEC technician runs cross connect in CO	=Copper_Percent	2.00	NTEC
131	Install cross connect (2 wire wrap, to AD4 ADTS Channel Bank / unitized SMAS)	NTEC technician runs cross connect in CO	=Copper_Percent	1.50	NTEC
132	Remove (2 wire wrap to AD4 ADTS Channel Bank / unitized SMAS)	NTEC technician disconnects jumper in CO	=Copper_Percent	1.50	NTEC
133	Install channel unit at AD4 (Z Office)	NTEC places channel unit in AD4 bank	=Copper_Percent	2.00	NTEC
134	DCS CPU Time (A Office)	CPU Time	=Copper_Percent		

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
135	Install CSU/DSU at STP		100%	2.00	SCC
136	Remove cross connect (COSMIC-like frame, e.g. punch-down, 2 four wire jumpers)	NTEC technician disconnects jumpers in CO	=Copper_Percent	2.00	NTEC
137	Install cross connect (4 wire wrap to AD4 Channel Bank / unitized SMAS)	NTEC technician disconnects jumpers in CO	=Copper_Percent	3.00	NTEC
138	Remove cross connect (4 wire wrap to AD4 Channel Bank / unitized SMAS)	NTEC technician runs cross connect in CO	=Copper_Percent	3.00	NTEC
139	Install DSX cross connect (5 wire)	FMAC technician connects jumpers in CO	100%	10.00	FMAC
140	Remove DSX wire cross connect (5 wire, existing ILEC service)	NTEC technician disconnects jumpers in CO	100%	10.00	FMAC

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
141	Remove DSX cross connect (5 wire)	FMAC technician disconnects jumpers in CO	100%	10.00	FMAC
142	Perform remote quasi random signaling source (QRSS) test via remote ITS - DTAU	TL1 command sent from ITS	100%	5.00	FMAC
143	Install plug-in at RT	FMAC places plug-in at Remote Terminal	=Fiber_Percent	2.00	FMAC
144	Install plug-in at ADM	FMAC technician places plug-ins at Add Drop Mux	=Fiber_Percent	2.00	FMAC
145	Install DS1 Smart Jack (Intelligent RJ48)	I&M Technician installs RJ48 jack at customer premise	100%	2.00	FMAC
146	Install cross connect (4 wire SMAS, wire wrap)	NTEC technician performs wire wrap connections in order to connect the SMAS points	=Copper_Percent	6.00	NTEC
147	Perform DDS testing	SSC performs test	100%	15.00	SSC
148	Perform loop back analysis test	SSC performs test	100%	5.00	SSC

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
149	Perform DDS latching loop back test	SSC performs test	100%	5.00	SSC
150	Perform testing (1000 Hz.)	SSC performs test	=Copper_Percent	1.00	SSC
151	Perform continuity test (check dial tone and ANI)	When the Cross Connect is completed, a continuity test is performed	=Copper_Percent	0.25	NTEC
152	Perform testing (loss, noise, 3-tone slope, loopback, etc.)	SSC coordinates testing	=Copper_Percent	8.00	SSC
153	Remove SMAS (wire wrap)	NTEC technician performs disconnect to the SMAS points	=Copper_Percent	6.00	NTEC
154	Remove SMAS (wire wrap)	NTEC technician performs disconnect to the SMAS points	=Copper_Percent	6.00	NTEC
155	Remove cross connect from MDF (COSMIC-like frame, e.g. punch-down, 2 four wire)	NTEC technician disconnects jumpers in CO	=Copper_Percent	2.00	NTEC

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
156	Remove cross connect from MDF (COSMIC-like frame, e.g. punch-down, 2 four wire)	NTEC technician disconnects jumpers in CO	=Copper_Percent	2.00	NTEC
157	**SIMPLE CROSS CONNECT AT THE NID**	This Cross Connect is done at the customer premise Network Interface Device			
158	Customer contact to gain access	I&M Technician contacts customer to gain access to premises	100%	3.00	SS I&M /OSP
159	Setup time / 1 work activity	Technician sets up cones at customer premise	100%	10.00	SS I&M /OSP
160	Rearrange cross wire at NID	Rearrange wiring and perform the Cross Connect function	100%	2.00	SS I&M /OSP
161	Perform continuity test (check dial tone and ANI)	After the wiring is rearranged the Installation Technician conducts test	100%	0.25	SS I&M /OSP

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
162	Tear down set up / 1 work activity	This function is performed by the Installation Technician and entails replacing tools, and collecting safety cones	100%	10.00	SS I&M /OSP
163	**DS3 FACILITIES (Loop and Transport)**				
164	Install card for DCS	Install plug-in card	25%	2.00	FMAC
165	Perform DSX3 cross connect	FMAC technician makes cross connections	100%	6.00	FMAC
166	Install card for SONET MUX (high speed - OC48 to STS1 or DS3)	Install plug-in card	100%	2.00	FMAC
167	Install card for SONET MUX (high speed - OC48 to STS1 or DS3)	Install plug-in card	100%	2.00	FMAC
168	Electronic cross connect on DCS	CPU time at the DCS	100%		

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
169	Electronic disconnect on DCS	CPU time at the DCS	100%		
170	Electronic cross connect on SONET MUX	CPU time at the MUX	100%		
171	Electronic cross connect on SONET MUX		100%		
172	Perform remote PRSB15 test	Perform remote PRSB15 test via ITS and external signaling source	100%	5.00	FMAC
173	Performance monitoring testing	This function includes setting up for the test and all associated criteria, monitoring the test	95%		
174	Retrieve and analyze performance monitoring data	The function includes setting up the PM testing capability and routing to the PM center	100%		
175	Intrusive Test (ITS)	This a 15 minute,30 minute, or 1 hour test and monitoring	5%		

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
176	CPU time for registers	CPU processing time	1%		
177	**DS1 INTEROFFICE TRANSPORT**				
178	Install card for DCS	Install plug-in card	25%	2.00	FMAC
179	Install card for SONET MUX (high speed - OC48 to STS1 or DS3)	Install plug-in card	100%	2.00	FMAC
180	Install plug in for low speed DS1 (low speed STS1 to DS1)	Install plug-in card	25%	2.00	FMAC
181	Electronic cross connect on DCS	CPU time at the DCS	100%		
182	Electronic disconnect on DCS	CPU time at the DCS	100%		
183	Electronic cross connect on low speed DS1 (low speed DS1)	CPU time at the DS1 cross connect	100%		

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
184	Electronic disconnect on low speed DS1 (low speed DS1)	CPU time at the DS1 cross connect	100%		
185	Perform remote quasi random signaling source (QRSS) test via remote ITS -DTAU	Keep alive signal applied to prevent alarms from activating	100%	5.00	FMAC
186	Performance monitoring testing	The function includes setting up the PM testing capability and routing to the PM center	Results from 95% of initial tests are acceptable. - SME		
187	Install CSU/DSU at STP	Install plug-in equipment	100%	2.00	SCC
188	Retrieve and analyze performance monitoring data	This function includes setting up for the test and all associated criteria monitoring the test	100%		
189	Perform SS7 test	Overall continuity test	100%	15. 00	SCC
190	Intrusive Test (ITS)	This a 15 minute, 30 minute, or 1 hour performance test and monitoring	Unacceptable results from initial test (5% of time) require intrusive tests - SME		

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
191	CPU time for registers	Internal system performance monitoring and calculations	1% require investigation. SME		
192	**SS7 STP GLOBAL TITLE TRANSLATIONS**				
193	Build global title translations - service level (input into SEAS / NET PILOT)	Input GTT into SEAS	100%	30.00	SCC
194	**SS7 STP MESSAGE TRANSFER PART**				
195	Build MTP point code to link set translations	Build MTP to point code to link set translation at ILEC STP	100%	15.00	SCC

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
196	Insert translations to perform diagnostics and place in available and in-service state	Perform translations remotely via SEAS / NET PILOT	100%	5.00	SCC
197	Insert translations to place in an out-of-service and available state	Perform translations remotely via SEAS / NET PILOT	100%	4.00	SCC
198	**FALL OUT STEPS**				
199	Fall Out: RMAs forwarded to PAWS for reconciliation	Some orders are cleared by PAWS while others require RMA	=FO_POTS		
200	Fall Out: Pull and analyze order: RCMAC	This entails analyzing the order and manually clearing the RMA and re-entering the order back into the mechanized process.	=FO_POTS	2.50	RCMAC
201	Fall Out: Resolve fallout: RCMAC	RCMAC clears jeopardy	=FO_POTS	15.00	RCMAC

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
202	Fall Out: RMA's forwarded to PAWS for reconciliation	CPU	=FO_POTS		
203	Fall Out: Pull and analyze order: LAC	LAC analyzes the order and makes corrections	=FO_POTS	2.50	LAC
204	Fall Out: Resolve fallout: LAC	LAC updates LFACS	=FO_POTS	15.00	LAC
205	Fall Out: Pull and analyze order: CPC	CPC analyzes order	=FO_Complex	2.50	CPC
206	Fall Out: Resolve fallout: CPC	CPC resolves problems with order	=FO_Complex	30.00	CPC
207	Fall Out: Pull and analyze order: SCC	SCC analyzes order	=FO_Complex	2.50	SCC
208	Fall Out: Resolve Fallout: SCC	SCC resolves problem with order	=FO_Complex	15.00	SCC
209	**CLOSE ORDER STEPS**				

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
210	Close order: FCC: Copper%	Technician closes order in SWITCH which sends information to SOAC, SOAC sends SOP completion information.	=Copper_Percent	1.50	FCC
211	Close order: FCC: Copper %*(%_Non_Dedicated	Technician closes order in SWITCH which sends information to SOAC, SOAC sends SOP completion information.	=Copper_Percent*Percent_Non_Dedicated	1.50	FCC
212	Close Order: FMAC	WFA/DI notifies TIRKS which sends completion to SOAC, SOAC sends SOP completion notice.	100%	1.50	FMAC
213	Close Order: SS I&M/OSP	WFA/DO notifies SOP of completion, SOP notifies SOAC of completion	100%	1.50	SS I&M /OSP
214	Close Order: NTEC: Copper %	WFA/DI notifies WFA/C and sends completion to TIRKS which notifies SOAC and updates SOP completion notice	=Copper_Percent	1.50	NTEC

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
215	Close Order: NTEC	WFA/DI notifies WFA/C and sends completion to TIRKS which notifies SOAC and updates SOP completion notice	100%	1.50	NTEC
216	Close Order: SSC	WFA/DI notifies WFA/C and sends completion to TIRKS which notifies SOAC and updates SOP completion notice	100%	1.50	SSC
217	**CLOSE ORDER PROVISIONING STEPS**				
218	SOAC updates SOP		100%		
219	SOP updates, WFA, NSDB, LMOS, BOSS, CRIS, etc.		100%		
220	SOAC updates WFA, NSDB, and CABS		100%		

Step	Task / Activity	Task / Activity Description	Probability Rationale / Formula	Time (Min.)	Rate (Work Center)
221	SOP completes LSR	ILEC Service Order Processor updates the Customer Service Record and LSR to complete status.	100%	-	
222	ILEC gateway notifies CLEC of completed order		NA	NA	NA
223	ILEC billing system issues final bill to migrating customer		NA	NA	NA
224	**END OF PROCESS STEPS**				
225	**LAST LINE**				