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ABSTRACT

Simply staffing the operations based on historical trends and marketing is not enough. The work flow between the field and the office must be taken into consideration when accurately staffing. Inefficient operating procedures can create a false need for manpower. Also, excess headcount can camouflage the "real" operating requirements. Often there is no time to evaluate and correct these problems on the short term. The long term result is a band-aid approach, i.e., treating the symptom, not the disease. As an example, if not managed, the following can significantly increase telephone traffic and truck trips (therefore, justifying more staff):

- 1. Scheduling of demand maintenance and installation appointments; prevent over and under booking.
- 2. Daily commitment of installation and demand maintenance manpower.
 - 3. Control of field work orders.
- 4. Paperwork is current: correspondence, work orders, etc.
- 5. Reconcile field activity with subscriber account.
- 6. Service calls and installations that require second and third field trip follow-ups.

This paper will show how the lack of control in these areas will produce high abandonment rates, missed appointments, paperwork backlog, no audit trail, low morale, work flow deterioration, and increased headcount.

INTRODUCTION

Total customer service in cable TV must include a tight relationship between the field and the business office. Intellectually, we know that these areas impact one another; however, often they operate daily as separate entities. It is natural for people, let alone departments, to deal with immediate issues facing them each day. Supervisors and management are responsible for developing procedures that raise the consciousness among departments. Employees should

know how their job impacts another area of the company. Departments which operate separately cost the company by duplicating efforts and by repeatedly solving the same problem. This paper will show how the office and field can work as one organization and maintain its unique qualifications. The functions specifically addressed here include:

- 1. CUSTOMER SERVICE: All telephone traffic except reception problems.
- 2. SERVICE REPAIR: Telephone calls from existing subscribers with reception problems.
- 3. DEMAND MAINTENANCE (DM): Field technicians who service existing subscribers on a scheduled date.
- 4. INSTALLATION: In-house and contractors delivering all levels of CATV service on a scheduled date, e.g., new connects, reconnects, upgrades, downgrades, and voluntary disconnects.
- 5. DISPATCH: Includes monitoring, expediting, and close out of DM and installation work.

Across the country, cable companies are organized differently, yet the functions are basically the same. The attention is not on how a cable system is organized, but how the functions operate within the reporting structure.

The popularity of cable TV has produced systems with 100,000+ subscribers. This includes two-way service, one-way addressable, and basic converters. Also, the majority of systems are on automated billing computers. Regardless of growth or sophistication, simple operating goals will produce satisfied subscribers and reduce costs. Like the term elegance, customer service should be defined as making the most effect by the least means. This paper will cover the basics of (1) operating criteria, (2) a fundamental foundation, (3) general work flow, (4) problems, and (5) recommendations and conclusions. With these issues managed, one can calculate realistic manpower requirements.

OPERATING CRITERIA

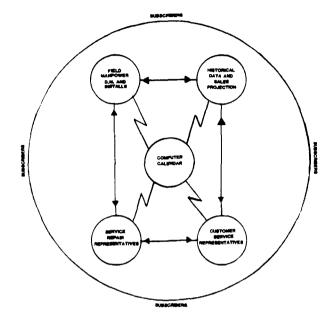
There are operating goals that are the essence of the general work flow. Procedures

should be developed to maintain the following office and field operations:

- 1. Complete all subscriber telephone transactions in one contact.
 - a) Adequately furnish each telephone workstation with supplies, documentation, training, and any resources necessary to complete the job. There should be no reason to leave a workstation except breaks and lunch.
 - b) Eliminate transferring calls. Crosstraining should provide the representative with the resources to complete any call. Frequent requests by the subscriber to speak to a supervisor indicate a performance problem for a particular phone representative. Support this with training and counseling.
 - c) Minimize outgoing phone traffic. Promise a call back only when absolutely necessary. You must be prepared to deliver that commitment the same day. Generally, a call back is offered during a very busy period. Before a return call is made, a second (third, fourth!) call is received. Call backs create incoming traffic. They camouflage productivity by indicating that a representative takes a high quantity of calls. If you cannot call back as promised, you have irritated the subscriber and damaged your credibility.
- Meet your commitments. Simply stated, any agreed upon appointment with a customer, DO NOT MISS.
- 3. Complete each field work order in one trip. Re-trips and follow-up work are costly, reduce productivity, irritate the subscriber, create phone traffic inquiring about status, and are difficult to monitor. Excessive follow-up work can indicate problems with creating orders with incorrect type of work, lack of inventory, inexperienced field technicians, etc.
- 4. Balance the daily field activity with the business computer. At the close of each day, the business computer should reflect an exact status of all work performed. This includes completed work, no access, cancels, reschedules, follow-up work required, and missed appointments. The bottom line is that every work order that leaves the office in the morning is accounted for in the computer at the close of each business day.

FUNDAMENTAL FOUNDATION

The goals and operating theme have been defined. We are ready to put in place basic blocks upon which on-going business is built. Also, we are prepared to assume that the primary source of our business is initiated by the subscriber. Refer to Figure 1.



Fundamental Foundation Figure 1

Note the outer circle that encompasses the business operation. All functions within the circle work to maintain existing or acquire new subscribers. Often these functions begin to operate separately. They view one another as the cause or result of their work. Departments gradually lose focus of total subscriber service. The functions within the large circle have equal responsibility.

Sales projections and historical data (top right circle) provide an estimation for field manpower requirements. Sales projections indicate the amount of activity that will result in increased (new build, remarket) or decreased (mature market) installation. Historical data is documentation that indicates previous service and construction activity. Finally, good estimations assist in forecasting. The quantity of business and manpower to accomplish it have a direct ongoing relationship. The normal operation requires time to absorb increased activity in the work flow. Failure to plan ahead for sales campaigns and new builds creates paperwork backlogs, overtime expense, missed appointments, loss of credibility, and increased phone traffic from irate subscribers.

The computer calendar (center circle) is a very potent tool in meeting commitments. The manpower plus the amount of work per man equals the number of appointments available to schedule. Control of this formula is central to total customer service. The telephone volume serves as a barometer of subscriber demands. Therefore, the scheduling of appointments requries daily review between the telephone representatives AND technical operations. To illustrate this point, subscribers do not stop calling in for service and installation when there are vacations, sick time, and terminations. In short, telephone volume does not decrease or increase with changes in manpower. The operations must accommodate fluctuations by revising the calendar daily. This allows for diverting manpower, obtaining back-up, or reducing the number of appointments not committed. Please Note: Once we have agreed to a schedule and appointments have been set up, technical operations must meet that commitment!! Rescheduling is not an acceptable means for adjusting overbooking. Indicators of overbooking include missed appointments, excessive reschedules, unreliable manpower, and increased phone traffic from irate subscribers. Installers, contractors, and DM technicians without work indicate underbooking. Both cost the company money. Please observe that every function has direct communication with the computer calendar. Employees must be able to speak with confidence about scheduling. This improves morale, company integrity, and subscriber rapport.

The bottom two circles have a constant relationship with one another--Customer Service and Service Repair. Both groups serve as back-up to one another. Phone representatives can directly effect increases or decreases in phone volume. He/she can cause a missed appointment or unnecessary field trip with a few careless seconds on the phone. The work order is the only connection between the subscriber and the technician. Inaccurate or incomplete information on the address, telephone number, or the type of work to be done can take a technician an hour out of the way. Field people are paid to do the job outlined on the work order. Spending time searching for an address, locating adults to be present, or performing unscheduled tasks put a severe time constraint on the remaining work load. Usually a customer is missed or rescheduled. Both telephone representatives and technical operations are equally responsible for meeting commitments.

The basis of a sound service organization is communication among all functions. The computer calendar is a vehicle used to control and facilitate service. These basic blocks are the fundamental foundation of a general operating work flow.

GENERAL WORK FLOW

The bulk of the business activity should be organized into one consistent operating procedure. The general work flow will include two main types of work orders—installation and DM. Disconnects will not be addressed here because the operation strives to cancel the order and retain the subscriber. There are several types of installation work orders, e.g., new connects, reconnects, upgrades, and downgrades. Although they represent different time, materials, and skill, both DM and installation work orders have the following in common:

- o The subscriber requests the work to be done.
- o The majority of requests are received via telephone to Customer Service and Service Repair except direct sales. However, after contact is made, the work order is handled the same way.
- o Both types of work orders require a scheduled appointment.
- o Both types of work orders require a field trip by a qualified technician.
- o Both types of work orders require a satisfactory resolution (e.g., completed, no access, rescheduled, cancel) and rarely a missed appointment.
- o Both work orders must be closed out in the business computer. Installs activate or revise billing. DM records service history.

Based on this common treatment of work orders, an efficient work flow can be developed. It is within the work flow that specific detailed procedures should be refined such as distribution of work, forms, inventory, etc. These procedures will be left to the creativity and efficiencies of each unique cable operation. However, control of the work order once in the field relies totally on communication to the office. There are two areas that require special attention and close follow-up:

- 1. Field technicians (contractors included) must update regularly during the scheduled work day via phone or radio. Except disconnects, all work orders should be updated after every two (2) jobs. Disconnects can be updated at least twice in the morning and twice in the afternoon.
- 2. The dispatch office closes out the work order during update or shortly afterwards. Close out of all work in the business computer is done before the end of the day.

These two guidelines provide the entire operation with the following:

- o A real time environment that communicates the status of a commitment the same day it was completed. There is no waiting for the business office on resolutions. This is critical for telephone representatives, sales, and expediting problem follow-up.
- o Keeps the operation current. Removes the need for catching up on yesterday's work. Reduces backlog of paperwork.
- o Information is more reliable with direct contact between the field and dispatch. Revisions can be done on-line while the information is still fresh.
- o Problem work orders and follow-ups can be taken care of the same day or scheduled immediately after update. Subscribers are not kept waiting longer for a second commitment.
- o No accesses, reschedules, and cancels can be verified immediately while the technician is on the line. This reduces storing paper and increases the likelihood that another arrangement can be made with the subscriber.
- o Monthly reports accurately reflect the field activity.

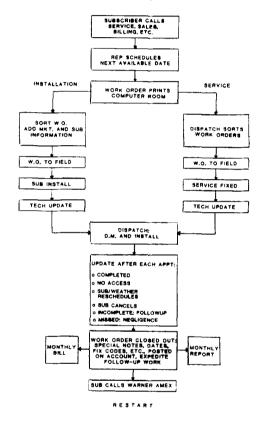
It is cost effective to develop an operational work flow that encompasses the treatment of most work orders. Secondly, exceptions and emergencies should be expedited through the exact same process. If there are severe public relations problems or critical complaints, a special task force is not the answer. Operations that create special task forces to tackle problems and critical complaints usually end up the refuse dump for unpleasant issues. Special task forces relieve the obligation to provide quality service from the rest of the operation. It costs manpower and reduces efficiency to maintain separate functions to perform the same task. The entire organization should operate as a special task force. Again, emergencies and special work should be done by expediting the normal procedures within the existing operation. Integrate this responsibility into lead and supervisor job descriptions.

Please refer to Figure 2 for a diagram of the general work flow outlining some of the areas noted so far.

The diagram recaps the operational flow of a scheduled work order. It notes the following: Subscribers want and request a type of service; a telephone representative can schedule for the next available date based on an agreed calendar; computer prints concise work orders; the work orders go to the field on schedule; installs and

service calls are resolved satisfactorily; regular updates from the field to the office convey status the same day; dispatch closes out the work before day end; and finally, at month end, accurate bills and reports are generated.

This work flow recycles with every request. To accommodate this operation, changes must be made in both the field and office procedures. One-sided procedures usually fail. For example, if dispatch is to close out work and convey the status of each work order, the technician must update regularly. Both office and field must cooperate for a successful operation.



General Work Flow For Scheduled Work Orders Figure 2

PROBLEMS

Problems have a chain reaction effect. One problem generates another and so on. This makes it difficult to identify which problem to resolve first. Problems are not unique to one function or department. A problem that reaches severe proportions will impact other functions directly or indirectly. We should be alerted when problem solving becomes the accepted standard of operation. Solid procedures are to be developed on the rule rather than the exception. Departments

can develop work flows that absorb problems and quickly return to normal operations. The following are problems that are symptomatic of weak operating procedures.

- 1. PAPERWORK BACKLOGS: This includes mail, work orders, reschedules, data base maintenance, etc., and is defined as any work to be done that is over 24 hours old. Backlogs cannot be helped during high activity periods, but they should not be tolerated regularly. Hidden in backlogs is outdated information, irate subscribers, billing problems, service problems, and potential subscribers. An operation consistently behind schedule can justify overtime and manpower with legitimate quantities of work. Also, operating in a "catch up" environment strains the employees. Employees do like to feel that the job is getting finished on time and correctly.
- 2. MISSED APPOINTMENTS are defined as not meeting scheduled appointments without notifying the subscribers. Consistent broken promises to the subscriber indicate negligence from both the field AND office. Often the business office feels that once the work order goes to the field, their responsibility to the subscriber ends. THIS IS NOT TRUE: The majority of missed appointments result from overbooking appointments, incomplete work orders, and irresponsibile field personnel. The dispatchers cannot force field technicians to do their job; however, they can insure that we are meeting our commitments by monitoring and alerting supervisors of potential missed appointments. Advanced warning allows time for diverting manpower, recruiting back-up help, or as a last resort, have the dispatcher call and reschedule. Missed appointments should be no more than 1% of the total monthly fielded work orders within each DM and installation department.
- 3. INCREASED TELEPHONE VOLUME: Fluctuations in phone traffic caused by sales campaigns, service interruptions, and billing cycles are considered typical. Telephone representatives should absorb these fluctuations into the normal work load. It is counterproductive to launch a sales campaign if the operation cannot handle the telephone volume. At this time, we are more interested in non-typical reasons for high telephone traffic, i.e., poor service. Missed appointments, excessive downtime for outage repairs, data entry errors that create billing and service problems, ignored phone messages, sloppy workmanship, backlogs, etc., all negatively stimulate the subscriber to call in. Staffing the phones based on inflated telephone traffic does not resolve any of the problems mentioned. In short, increased phone volume does not justify additional headcount. Likewise, an increase in headcount does not guarantee improved customer service.
- 4. NO AUDIT TRAIL: It is difficult to resolve problems if you cannot locate the source. Departments that operate independently have defined lines of where responsibilities begin and

- end, thus a void is created. This is where issues such as missed appointments, follow-up field trips, and correspondence fall between the cracks. From the time a work order is created until closed out, it can pass through several departments. As a work order travels, a check and balance procedure should be put in place. This will identify who, what, when, where, and how the subscriber was treated. Most of the time, we have to recreate the entire situation to resolve the problem. Audit trails assist in preventing the problems from recurring.
- 5. UNRELIABLE MANAGEMENT REPORTS: It is very likely that if Items 1 through 4 are on-going in the operation, reports will be inaccurate. Strategic planning and budget forecasts cannot be effectively completed from reports that do not portray the operation correctly.
- 6. WORK FLOW CRUMBLES: When the normal work flow fails to produce results, it is replaced by survival procedures. Employees generally want to do a good job. To continue working in a hectic environment, employees begin to rely on other resources. These measures may not be efficient or cost effective; however, they do set the subscriber service. In severe cases, the work flow becomes Darwin's theory—survival of the fittest. Employees are either overworked or cruising along enjoying anonymity in the crazy environment. The goal is to work smarter, not harder.

RECOMMENDATIONS AND CONCLUSIONS

There is no magic formula for reducing headcount and increasing productivity. There are areas that may require minimal improvements, while others require a serious effort. To successfully implement change, consider the following:

- 1. Review the operation during low and high activity periods.
- 2. Draw conclusions based on improved productivity and normal work load. $% \begin{array}{c} \left(\frac{1}{2} \right) & \left(\frac{1}{2} \right$
 - 3. Obtain feedback from other departments.
- 4. Invite other departments to cooperate in any changes to the work flow.
- 5. Develop detailed procedures and implement during a time conducive to change.

Telephone representatives, dispatchers, installers, and demand maintenance technicians are all responsible for each subscriber. Sharing responsibilities allows for each area of expertise to grow. The "team effort" is clearly the key to total customer service. Management is responsible for a work flow that accommodates this effort. The following are firm guidelines on which to develop procedures. These areas promote the relationship between the office and the field.

- 1. THE BUSINESS OFFICE CENTRALLY CONTROLS PAPERWORK. Specifically, opening/closing of work orders, rescheduling, and expediting follow-up work.
 - 2. SAME DAY CLOSE OUT OF ALL WORK ORDERS.
- 3. CONTROL THE SCHEDULE CALENDAR. Buffer the schedule manpower. Technical operations and telephone representative supervisors must mutually commit to the schedule.
- 4. HIRE QUALITY CONTRACTORS and monitor their performance. Contractors must follow the same policies as in-house installers for quality service. Levy fines for failure to update work or incorrect work order information. Provide incentives by giving quality contractors work that pays more per piece, e.g., new connects vs. upgrades. Terminate contractors that are not subscriber-sensitive.

5. ELIMINATE ALL BACKLOGS.

- 6. REVISE AND RECONCILE MONTHLY MANAGEMENT REPORTS. Review the reports. Verify that the data is useful to the current and future operation. Delete information that is not. Confirm the what, when, where, and how the information is compiled and ease of maintaining. Audit the report by taking a sample and confirm that it actually represents the operation. Finally, after the review, revise, distribute, and maintain the report's integrity. Automate whenever possible.
- 7. AUTOMATED TELECOMMUNICATION SYSTEMS can handle outgoing telephone traffic demands. These systems are moderately priced and can improve the quality of service. Recommended uses include (1) appointment confirmation on DM and installation calls, (2) quality control of DM and installs, and (3) outage fix verification. Other uses have been sales promotions, and "soft" collection calls for non-paying customers.