

Minnesota Public Utilities Commission

Staff Briefing Papers

Meeting Date: May 8, 2015 *Agenda Item #1

Company: **All Telephone Companies and Telecommunications Carriers.**

Docket No. **P999/CI-12-1329**

In the matter of the Commission Investigation of the Completion of Long-Distance Calls to Rural Areas of Minnesota.

Issues: Should the Commission reconsider on its own initiative its October 31, 2014, Order modifying and clarifying July 21, 2014 Order?

Should the Commission October 31, 2014 Order be modified?

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NOTE: The Commission may decide a matter on its own initiative with or without a hearing or oral argument.

Relevant Documents

Order Requiring Interexchange Carriers to Report Call Completion Complaints July 21, 2014
Order Modifying and Clarifying July 21, 2014 Order October 31, 2014
Comments by the Department of Commerce November 11, 2014
Notice Soliciting Response Comments and Replies December 03, 2014
Integra's Reply Comments January 09, 2015
MCCA Reply Comments January 09, 2015
Century Link Comments January 09, 2015
Minnesota Telecom Alliance Reply Comments January 30, 2015
MCCA Reply Comments January 30, 2015
Commerce Reply Comments January 30, 2015
Public Comments February 05, 2015

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I. Statement of the Issues

Issues **Should the Commission reconsider on its own initiative its October 31, 2014, Order modifying and clarifying July 21, 2014 Order?**
Should the Commission October 31, 2014 Order be modified?

II. Background

On July 21, 2014, the Minnesota Public Utilities Commission (Commission) issued its Order Requiring Interexchange Carriers to Report Call Completion Complaints (Order). The Order required interexchange carriers to report all call completion complaints. Specifically, the Order included:

All originating interexchange carriers doing business in Minnesota shall report each call completion complaint they receive to the Commission and the Department on a quarterly basis, for a one-year period. The report shall include the following details:

- A. Root cause analysis on any call completion complaints for any intrastate call completion problem regardless of who reports the incident to the carrier;
- B. If an intermediate provider in the call path was responsible for call failure, the name of that intermediate provider and whether the intermediate provider was removed as a routing alternative;
- C. Any past performance or call failure problems that the interexchange carrier has had with the intermediate provider (if not already reported via this process);
- D. An explanation of what steps the interexchange carrier has taken with the intermediate provider to ensure call completion problems do not occur in the future; and
- E. Whether test lines were made available by the incumbent local exchange company in the exchange where the call failed, and if so, the testing process used by the interexchange carrier.

The Commission also: directed that rural incumbent carriers shall make test lines available so that interexchange carriers have the opportunity and ability to test the effectiveness of their call routing processes; observed that removal or altering of call signaling information to commit fraud is a serious offense in violation of federal and state law; relieved companies lacking complaints of reporting; and held the docket open, continuing to track related FCC initiatives and investigate individual complaints.

Ten days after the Commission issued its Order, on July 31, 2014, the Minnesota Cable Communications Association (MCCA) filed a Petition for Reconsideration (Petition) of the Commission's Order.

On August 11, 2014, the Minnesota Department of Commerce (Department) provided its Answer to the MCCA Petition.

Also on August 11, 2014, Integra Telecom of Minnesota and Eschelon Telecom of Minnesota d/b/a Integra (collectively Integra) filed a petition for reconsideration, or in the alternative, to amend and clarify portions of the July 21, 2014 Order.

On August 21, 2014, the Department and the Minnesota Cable Association each filed an answer to Integra's petition.

On October 16, 2014, the Commission met to consider the matter.

On October 31, 2014, the Commission issued an Order Modifying and Clarifying its July 21, 2014 Order (October 2014 Order). In this Order the Commission chose to not include all complaints in this proceeding, but to instead consider only a subset which did not include complaints concerning calls terminating in 106 Quest Corporation (QC) rural exchanges or in over 100 Competitive Local Exchange Carriers (CLECs). Specifically, Ordering Paragraph 2 of the Commission's July 21, 2014 Order was modified as set forth below:

All originating interexchange carriers doing business in Minnesota shall report each reportable call completion complaint they receive to the Commission and the Department on a quarterly basis, for a one-year period. A reportable call completion complaint is a complaint by a carrier or customer, to an originating interexchange carrier, regarding the failure of a customer's intrastate call to terminate to an end-user associated with a rural carrier, as defined in the FCC Rural Call Completion Order, at a time when the customer is able to terminate calls to other end users. Each quarterly report shall be due 30 days following the completion of the quarter, with the first quarter covering January 1, 2015 through March 31, 2015. The report shall include the following details for each complaint.

- A. Root cause analysis, including a description of the steps taken in the analysis to identify the root cause and identification of the root cause or an explanation as to why a root cause could not be determined; ~~on any call completion complaints for any intrastate call completion problem regardless of who reports the incident to the carrier.~~
- B. If an intermediate provider was used in the call path ~~was responsible for call failure~~, the name of that intermediate provider, whether the intermediate provider was responsible for the failure, and if the intermediate provider was responsible for the failure, whether the reporting interexchange carrier has removed that the intermediate provider was removed as a routing alternative;
- C. Any past performance or call failure problems that the interexchange carrier has had with the intermediate provider (if not already reported via this process);

- D. An explanation of what steps the interexchange carrier has taken to resolve the problem raised in the complaints and ensure call completion problems do not occur in the future, including whether the call path was rerouted and whether test lines were requested and made available; with the intermediate provider to ensure call completion problems do not occur in the future.
- E. ~~Whether test lines were made available by the incumbent local exchange company in the exchange where the call failed, and if so, the testing process used by the interexchange carrier.~~

On November 20, 2014 the Department submitted Comments to clarify the effect of the Commission's October 31, 2014 Order noting that the Commission may choose, on its own motion, to reconsider and provide clarification of its October 31, 2014 Order Modifying and Clarifying its July 21, 2014 Order in this matter. The Department noted that at the time of its most recent decision, the Commission did not have the information now presented showing the extent to which rural call completion complaints will not be reported in this proceeding. Furthermore, the Department noted that the Commission's October 2014 Order contemplated broadening the future scope of complaints considered in this proceeding.

The Department observed that the October 2014 Order recognized that limiting "reportable" complaints to those from exchanges having the OCNs used in the FCC Rural Call Completion Order may potentially leave out *some* call completion complaints in rural areas. However, ordering paragraph 2 as modified in October will not include *any* call completion complaints for calls terminating to QC or CLEC customers operating in QC's exchanges, even though the failed calls may be to rural areas of Minnesota.

The Department proposes at page 7:

A better course of action may be to first understand the scope of the problem and include all [call completion complaints] ... Unfortunately there is no definitive means to include only [call completion complaints from] rural exchanges or rural areas, and while some CLECs mirror the exchange boundaries of the ILEC, cable telephony does not follow telephone exchange boundaries.

To the extent it is believed there is too great of a reporting burden to originating carriers, the Commission could consider omitting [call completion complaints regarding calls] that are terminating to the Twin Cities area codes of 612, 651, 763 and 952 as the most efficient way to define the reporting requirement. This would ensure that [complaints about failed] rural area calls get reported and prevent carriers from having to report [complaints concerning] non-rural calls because the carrier operating in a non-rural area has a rural OCN. It also would ensure that [complaints concerning] call failures to CLEC customers operating in rural areas are included in the reporting.

In the alternative, the Department has suggested that reporting include all complaints received on failed call completions intended to terminate: 1) in rural areas served by CLECs'; and/or 2) in rural areas served by CenturyLink; or 3) throughout the State of Minnesota.

On December 10, 2014 the Commission issued a Notice Soliciting Response Comments and Reply Comments addressing the Department's November 20, 2014 Comments on the consequences of the Commission defining a "reportable call" in its October 2014 Order in this proceeding. Parties were asked to include replies to the following questions:

1. Should the Commission broaden its order to cover calls in rural areas served by CLECs?
2. Should the Commission broaden its order to cover calls in rural areas served by CenturyLink?
3. Should the Commission define rural calls as all calls outside of area codes 612, 651, 763, and 952?
4. Should the Commission adopt the Department's suggestion to broaden its order to cover failed calls to all destinations to allow the comparison of urban and rural call completions and to lessen the burden of separating a subset of all failed calls to report?

III. Parties Positions

DEPARTMENT COMMENTS

On November 20, 2014, the Department submitted written Comments on the extent to which its October 31, 2014 Order limits the reporting of rural call completion complaints.

The Department presented a color map of Minnesota Telephone Exchanges (DOC Attachment 1); a list of 106 Qwest Corporation (QC) rural exchanges excluded from reporting complaints (DOC Attachment 2); and a list of active CLECs also excluded from reporting complaints (DOC Attachment 3) under the Order.

In its narrative the Department asserted that the reduced reporting of complaints resulting from changes to Ordering Paragraph 2 to rely on rural OCNs did not align with the stated goals of simply narrowing the required reporting of complaints to rural areas. The Department reasoned that because this excludes complaints made regarding Qwest/CenturyLink areas in rural Minnesota and CLEC's in those exchanges; and because relying on OCN's further includes complaints from some non-rural areas, the Commission may have altered complaint reporting differently than intended.

As a consequence of limiting reports to only complaints of failed calls to exchanges having rural OCNs, call completion complaints concerning QC exchanges of Red Wing, St. Charles, Winona and Wabasha in Representative Drazkowski's district are not included in the ordered reporting.

Representative Drazkowski's concerns about these areas are noted in DOC Attachment 4. (See Department Comments at pages 4-5.) Further, the reporting of failed rural call completions involving CLECs is supported by Hiawatha Broadband Communications submittal (DOC Attachment 7).

The Department also notes that some parties in the FCC proceeding on rural call completions expressed concerns over OCN list accuracy and completeness (DOC Attachments 5 and 6). These concerns could be mitigated by reporting all complaints of call termination failures. The Department suggests this would not be burden unless an unexpectedly large number of qualified complaints were received. (See Department Comments pages 5-6.) In the alternative, omitting complaints of failed calls terminating in the Twin Cities area codes of 612, 651, 763, and 952 could be a means of lessening a perceived reporting burden while capturing a robust rural coverage area for reporting. (See Department Comments at page 7.)

INTEGRA COMMENTS

Integra indicated that it does not believe the Commission needs to alter its Order although it is not opposed to the Department's suggestion for statewide reporting of complaints, excluding areas codes 612, 651, 763, and 952. However, to the extent this might result in a greater number of complaints to address, it will still be more burdensome.

Integra opposes reporting of call completion complaints involving CLECs stating the problem being examined is believed to be related to high terminating access rates. "Since most in Minnesota have some of the lowest terminating access rates in the state [and] the economic incentive to avoid high cost terminating access charges by not completing calls to CLECs in rural areas is not present to the degree it is for the rural ILECs." (See Integra Comments, p.2.) Further, Integra notes the Commission's present reporting requirement is consistent with the FCC's decision that data gathering from only ILEC OCNs are sufficient to investigate this issue. (See Integra Comments, p. 3.)

Integra opposes reporting of complaints about calls failing to terminate in CenturyLink exchanges. Integra again noted the problem being examined is believed to be related to high terminating access rates. CenturyLink has low terminating access rates across its entire territory. The FCC has excluded its OCN from the FCC's rural OCN list and the Commission should similarly not seek reports on such complaints if they occur.

Integra opposes reporting of complaints about calls failing to complete on a state-wide basis suggesting that comparisons of rural call completion failures to non-rural failures should include the relative attempts for each group and other unspecified data for proper comparisons. Furthermore, the additional work of determining and reporting root cause (beyond simply investigating the problem sufficiently to fix it) is burdensome and multiplies with the number of complaints reported. (See Integra Comments, p. 5-6.)

MINNESOTA CABLE COMMUNICATIONS ASSOCIATION (MCCA) COMMENTS AND REPLY COMMENTS

In its introductory statement, MCCA briefly reiterates its position that this proceeding is an unlawful rulemaking and that the data collection is unnecessary. (See MCCA Comments, p.1)

No changes should be made because:

1. The Commission was fully informed, no new facts are presented and the Commission's Order acknowledges and accepts incomplete rural coverage of reporting requirements (See MCCA Comments, p. 3, 5-7);
2. Reporting preparations underway would be disrupted if again revised (See MCCA Comments, p. 3 and p. 8);
3. Neither expanding the scope of the Order or using area codes rather than OCNs would better address the undefined term "rural" call completion complaints (See MCCA Comments, p. 3, 8-9); and
4. The Order is consistent with FCC reporting requirements. (See MCCA Comments, p. 2-4)

MCCA's Reply Comments affirms its opposition to any change, including the use of area codes as suggested by the Department, and stresses the importance of consistency with FCC reporting.

CENTURYLINK COMMENTS

CenturyLink responds to the Commission's request for comments by stating as follows:

"None of these suggestions are new. They have been raised, considered and rejected in this proceeding. Pages 2-3 of the October 31st Order specifically considered and rejected broad reporting requirements suggested by the Department. CenturyLink recommends that the Commission deny the Department's suggested modifications." (See CenturyLink Comments, p. 2.)

CenturyLink asserts Department Attachments 5 and 6 concerning OCN list adequacy have been resolved at the FCC showing the list to be complete. Department Attachment 7, an email from Hiawatha Broadband Communications (HBC) appealing for statewide reporting, CenturyLink dismissed as an isolated outlier.

CenturyLink comments also emphasize that the present Commission approach to the reporting of complaints is consistent with that of the FCC. Hence, it should not be changed.

MINNESOTA TELECOM ALLIANCE (MTA) REPLY COMMENTS

The MTA opposes any changes to the existing Order and agrees with the comments of other parties supporting the current October 31, 2014 Order. In its opening statement, the MTA also stresses the importance of consistency with FCC methodology suggesting this will provide a much stronger deterrent against wrongful actions.

PUBLIC COMMENT (HIAWATHA BROADBAND COMMUNICATIONS)

Public Comments were received only from Daniel DeBroux on behalf of Hiawatha Broadband Communications (HBC) repeating the points of their letter which is Attachment 5 to the Department's Reply Comments. HBC answers all 4 questions in the Notice in the affirmative.

DEPARTMENT'S JANUARY 30, 2015 REPLY COMMENTS

New Information Has Been Provided

The Department states that map of telephone exchange locations (DOC Attachment 1), listing of Qwest Corporation Rural Exchanges (DOC Attachment 2) and listing of CLECs (DOC Attachment 3) filed with its November 2014 Comments are new information provided in response to Commissioner Lipschultz's questions asking which CenturyLink entities were rural incumbent local exchanges carriers (had rural OCNs). (See Audio recording from October 16, 2014 hearing, 14:38 to 14:50.) These materials clarify where QC is the ILEC and the extent to which complaints arising in rural Minnesota would not be reported because QC is not an RLEC and does not have a rural OCN.

Similarly, the Department's November 2014 Attachments 5 and 6 address discussions by CenturyLink and Level 3 with the FCC on the use of ONCs for data gathering. These discussions were subsequent to information that the Commission previously considered. Contrary to CenturyLink's claim that these issues have been resolved the Department argues that the issue continues to develop as shown by the FCC Public Notice in Department Reply Attachment 1. In addition, CenturyLink has continued to raise concerns regarding ONC list completeness and accuracy as shown by the Notice of Ex Parte communication in Department Reply Comments Attachment 2.

Area Codes May Be Used To Define Rural Areas of Minnesota

In its November 2014 Comments the Department suggest that area codes could be used to define what is considered rural instead of OCNs since there is not a clear definition of what constitutes Minnesota's rural exchanges/areas. The Department notes that both Integra and CenturyLink refer to the FCC's call completion Notice of Proposed Rule Making (NOPR) to support their argument that complaint reporting is not warranted from CLECs. However, the Department observes,

“ ... [T]he data the FCC will ultimately collect is high level call completion data and has a different purpose than the reporting required in this Minnesota proceeding. The FCC data collection will compare urban and rural call data and determine whether further analysis is needed for calls to rural OCNs from specific originating carriers. The data ordered by the Minnesota Commission is for known call failures and seeks the root cause analysis to explain why the call failed, what entity was responsible for the call failure, and what action was taken to correct the problem.” (See Department Reply Comments, Page 5.)

Calls to CLEC Customers in CenturyLink Territory Are Failing to Complete

Calls terminating to CLECs operating in CenturyLink’s territory do fail to complete and complaints of such failures should be considered in this proceeding. The Department Reply Comments state:

“Attachments 3, 4 and 5 are affidavits from three different CLECs operating in rural areas of QC territory. Due to call failures, all three CLECs Consolidated Telecommunications Company (CTC), Otter Tail Telecom, and Hiawatha Broadband Communications (HBC) have implemented costly work-around solutions to ensure customer calls will complete.” (See Department Reply Comments, Page 5.)

The root cause remains unidentified and unaddressed absent clarification of the Order for call failures to CLEC customers in rural ILEC areas to be reported. (See Department Reply Comments, Pages 5-7.)

The Department specifically disputes CenturyLink’s suggestion that the inclusion of input from HBC (Department Attachment 7) was an isolated instance. Instead, citing previously mentioned CLECs addressed in Department Reply Attachments 3, 4, and 5, the Department asserts that call termination failures are not an isolated CLEC problem and that the Commission should not rely on Integra’s advocacy to represent the interests of all other CLECs. (See Department Reply Comments, Page 6-7.)

IV. Staff Analysis

The essential question is, “Which call completion complaints should be reported to the Commission for consideration and which should not be reported and considered?”

Staff observes that the Department’s map of exchanges (Department Comment Attachment 1) and its accompany QC and CLEC exchange listing in Attachments 2 and 3 are thought-provoking with regards the limited locations from which complaints will be considered in this proceeding. Staff recommends the Commission discuss if the presently restricted selection of “reportable” complaints provides the intended quantity and appropriate granular quality of data to assess and remedy problems with Minnesota’s rural call completions.

A primary purpose of selecting only a subset of all complaints on rural call completion failures for consideration was concern over the need to address a burdensome number of complaints. However, during the first quarter 2015 reporting period only two complaints were reported, both by Mincontinent Communications which declined to identify root causes or provide a description of the steps taken in the analysis to identify the failure's root cause.

Furthermore, no party has provided evidence that a potentially burdensome number of complaints would occur in the future if the Department's suggestion for statewide, or non-metro complaint reporting were adopted.

To the contrary, in the Staff Briefing Paper of June 26, 2014, presentation of complaints to the Commission's Consumer Affairs Office (CAO) shows applicable statewide complaints in 2011 through 2014 to range from zero to fewer than 20 per year, *including* the metro area. In addition to these complaints being few in number, they were geographically clustered. (Emphasis added. See Staff Briefing Paper, June 26, 2014, p.18-19.)

The Department has documented complaints concerning call completion terminations in CLEC exchanges which would not be considered under the present Order language. Together with the expected small total number of complaints and their being clustered geographically, *these circumstances indicate the importance of more complete assessment of complaints in order to avoid missing a high proportion of a small total number of complaints that may be clustered in a manner that would presently not bring them under the Commission's scrutiny.* This risk to the Commission's information gathering would be best remedied by the Department's original request for state-wide reporting of call completion complaints.

In conclusion, the Commission's present Order does not appear to have resulted in information with which it can assess and remedy Minnesota's rural call completion failures. In answer to the question "Which call completion complaints should be reported to the Commission for consideration and which should not be reported and considered?" staff recommends that all complaints should be considered and none excluded. Considering all complaints would best mitigate the risk of not considering a significant proportion of a small number of clustered complaints.

In the alternative, staff acknowledges the Department's suggestion in its November 2014 Comments that limiting consideration of complaints concerning failed call terminations to all area codes outside of the metropolitan area codes (i.e., excluding area codes 612, 651, 763 and 952) may provide adequate information for the Commission. This suggestion of using area codes (instead of OCNs) with the exclusion of metro area codes was not opposed by Integra. Staff notes this suggestion by the Department predates the reporting of only two complaints during the first quarter 2015 reporting period.

Although some commenters have suggested costly or untimely programmatic disruption if the Commission were to amend its information gathering directions, no parties have presented

details of any specific obstacles to communicating the recommended changes to implementing staff or to applying them to a modest number of qualifying complaints.

Lastly, staff observes that based on initial reports received, parties may find clarification helpful regarding the Commission's Order to report "... a description of the steps taken in the analysis to identify the root cause and identification of the root cause ..." as well as "An explanation of ... steps ... taken to resolve the problem raised in the complaints and [to] ensure call completion problems do not occur in the future ..." Staff has provided a general description of root cause analysis in "Attachment 1: Root Cause Analysis" to this briefing paper as a potential source of general guidance.

V. Commission Options

Issue 1: Should the Commission reconsider on its own initiative its October 31, 2014, Order modifying and clarifying July 21, 2014 Order?

- 1.A No. Do not reconsider.
- 1.B Yes, and proceed to Issue 2.

Issue 2: Should the Commission October 31, 2014 Order be modified?

- 2.A Yes, modify the Order to report all call completion complaints.
- 2.B Yes, modify the Order to report all call completion complaints except those regarding calls intended to terminate in area codes 612, 651, 763 and 952.
- 2.C Yes, modify the Order to include reporting of complaints of failed call terminations to end users associated with CLECs.
- 2.D Yes, modify the Order to include reporting of complaints of failed call terminations to end users associated with CenturyLink.
- 2.E Yes, modify the Order to provide guidance on the conduct and reporting of the ordered root cause analysis.
- 2.F Yes, modify the Order in other ways determined by the Commission.
- 2.G No, do not modify the Order.

Root Cause Analysis

Description

Root cause analysis (RCA) identifies what, how why something happened, thus preventing recurrence.

Root causes are underlying, identifiable, can be controlled by management and allow for generation of recommendations.

The process of root cause analysis involves data collection, cause charting, root cause identification and recommendation generation and implementation.

(Source of description: "Root Cause Analysis For Beginners" by James J. Rooney and Lee N. Vanden Heuval, Quality Progress, July 2004, p. 45-53.)

The following is edited from Root Cause Analysis, Wikipedia, April 29, 2015 at http://en.wikipedia.org/wiki/Root_cause_analysis .

General principles of root cause analysis

1. The purpose of root cause analysis is to:
 - 1.1 Identify the factors that resulted in the nature, the magnitude, the location, and the timing of the harmful outcomes (consequences) of one or more past events;
 - 1.2 Determine what behaviors, actions, inactions, or conditions need to be changed;
 - 1.3 Prevent recurrence of similar harmful outcomes; and
 - 1.4 Identify lessons that may promote the achievement of better consequences. ("Success" is defined as the near-certain prevention of recurrence.)
2. Root cause analysis is performed systematically, usually as part of an investigation, with conclusions and root causes that are identified backed up by documented evidence. A team effort is typically required.
3. There may be more than one root cause for an event or a problem, wherefore the difficult part is demonstrating the persistence and sustaining the effort required to determine them.
4. The purpose of identifying all solutions to a problem is to prevent recurrence at lowest cost in the simplest way. If there are alternatives that are equally effective, then the simplest or lowest cost approach is preferred.
5. The root causes identified will depend on the way in which the problem or event is defined. Effective problem statements and event descriptions (as failures, for example) are helpful and usually required to ensure the execution of appropriate analyses.

6. One logical way to trace down root causes is by using hierarchical clustering data-mining solutions (such as GT data mining). *A root cause is defined* in that context *as "the conditions that enable one or more causes"*. Root causes can be deductively sorted out from upper groups of which the groups include a specific cause.
7. The analysis should establish sequence of events or timeline for understanding the relationships between contributory (causal) factors, root cause(s) and the defined problem or event to be prevented.

General process for performing and documenting an RCA-based Corrective Action

RCA (in steps 3, 4 and 5) forms the most critical part of successful corrective action, directing the corrective action at the true root cause of the problem. Knowing the root cause is secondary to the goal of prevention, as it is not possible to determine an absolutely effective corrective action for the defined problem without knowing the root cause.

1. Describe the event to prevent in the future. Include the qualitative and quantitative attributes (properties) of the undesirable outcomes. Specify the natures, the magnitudes, the locations, and the timing of events.
2. Gather data and evidence. Classify it along a timeline of events leading to the final failure. For every behavior, condition, action and inaction, specify in the "timeline" what should have been done when it differs from what was done.
3. Ask "why" and identify the causes associated with each sequential step towards the failure event. What were the factors that directly resulted in the effect?
4. Classify causes into two categories: causal factors that relate to an event in the sequence; and root causes that interrupted that step of the sequence chain when eliminated.
5. Identify all other harmful factors that have equal or better claim to be called "root causes." If there are multiple root causes, which is often the case, reveal those clearly for later optimum selection.
6. Identify corrective action(s) that will, with certainty, prevent recurrence of each harmful effect and related outcomes or factors. Check that each corrective action would, if pre-implemented before the event, have reduced or prevented specific harmful effects.
7. Identify solutions that, when effective and with consensus agreement of the group: prevent recurrence with reasonable certainty; are within the institution's control; meet its goals and objectives; and do not cause or introduce other new, unforeseen problems.
8. Implement the recommended root cause correction(s).
9. Ensure effectiveness by observing the implemented solutions in operation.