

Business End User Input to NRIC VI Final Report

(by Brian R. Moir on behalf of eTUG)

Since the beginning of the first NRIC, a stated objective has always been evaluation, and reporting on, the reliability of America's networks. Data collection is critical to NRIC's ability to make those evaluations, and its data collection efforts must be judged by the quality of the data that they generate and by the strength of the data analyses that result. Overall, the data coming from the voluntary trial was quite poor, and as a result, the analyses are unable to provide any real conclusions about the reliability of communication networks. Consequently, the NRIC VI Voluntary Trial must be judged a failure as a data collection effort whose objective is to facilitate meaningful evaluation of the reliability of the network facilities of the industries covered by the Voluntary Trial.

Basically, the Voluntary Trial was doomed to failure from the beginning. To ensure success, decisions needed to be made at the outset regarding the data to be collected in order to ensure that the data could be used to meaningfully describe the reliability of America's communication networks. It is unclear whether NRIC ever developed a set of questions regarding what data was necessary to ensure that the data collection effort would provide the relevant information necessary for a meaningful evaluation of those networks' reliability. The NRIC report provides no conclusions about network reliability of the industries covered by the Voluntary Trial based on the data collected.

Some of the most obvious problems with the Voluntary Trial are listed below:

- **Compliance was disappointing during the trial.** During no month did all of the mere 27 companies in a report indicating either an outage or a positive report which would state that no outages occurred. This is extremely disappointing since the amount of effort to fill out a positive report is minimal. In many months, a large percentage of companies did not comply.
- **It is impossible to determine whether individual companies or individual industry segments complied with the process.** It is totally possible that a handful of companies contributed all the outage information. It is also possible that an industry segment could have provided no reports. Since company names and industry segments were scrubbed from the reports, NRIC VI has no idea whether all the reports came from a few companies (or one industry segment) or not. Consequently, the data made available for evaluation did not facilitate any meaningful evaluation of this country's network reliability.
- **Scrubbed outage reports have little information.** Of those reports submitted, many are worthless if the goal is to describe the outages and help determine ways to prevent future outages. NRIC VI decided that a "minimal" template should be used in the Voluntary Trial. That is, NRIC VI did not try to expand the information collected. Even with a minimal template, many of the reports have many fields left blank. One report has only twelve words (counting the numbers as words). There were several "optional" fields that are rarely filled out adequately. Optional fields included the root cause of the outage, methods used to restore service, and applicable best practices. Making these fields optional

guaranteed that the information would be sparse. Since NRIC was only dealing with voluntary reports, participating companies and industries may not have taken the reports as seriously as some may have hoped for. Obviously, if the data coming in is poor, even the best analyses can not make the data useful.

- **The time to scrub outage reports was incredibly long:** Two of the six outage reports from February have still not been scrubbed. Three of the seven outage reports from March have still not been scrubbed. NRIC should consider this a major process failure. It should not take 4 to 5 months to scrub outage reports. Not having timely data makes it impossible to perform any good analyses or to make any reasonable comparisons. Basically, access to timely evaluations of network reliability are impossible or severely limited unless the reports are scrubbed on a considerably faster basis.
- **No objective evaluation of the usefulness, effectiveness and timeliness of the process - This was required in the charter.** Many flaws in process were ignored and to this day not addressed. Although, the group seemed to be able to identify faults in the process, no details on how they should be addressed are given. Of greater importance, none of these flaws were addressed adequately by NRIC VI during the voluntary trial. In fact, NRIC VI adopted very close to the same processes that failed in NRIC V. In addition, NRIC did not perform even rudimentary analyses of the quality of the data that they collected. NRIC did not describe how often optional fields were filled out. NRIC did not describe how often mandatory fields were filled out. Of particular note, NRIC did not compare the quality of the voluntary information versus the quality of information in mandatory 63.100 reports.
- **No statement about the status of network reliability can be made based on the trial – This was part of the charter.** There is not one conclusion that NRIC VI draws about network reliability from the voluntary trial. There is not one statement in the report or in the presentation of the group that addresses the reliability of communication networks. For instance, there is no statement about the reliability of wireless networks or other networks covered by the Voluntary Trial.
- **No statement can be made about any individual industry segment.** Not only does NRIC make no statement about whether segments complied, NRIC makes no statement about the frequency, duration and effect of outages for individual industry segments. NRIC decided to scrub the information that would allow an analyst to make these statements.
- **No conclusions can be drawn from any of the graphs that were based on information from the scrubbed reports from the voluntary trial¹.** There is no text around each graph describing why that graph was included. NRIC does not explain the graphs nor provide any conclusion based on the graphs. The SPC graphs are particularly hard to understand. NRIC does not describe what process is being controlled. NRIC does not explain why it puts individual outages on an SPC graph. NRIC does not explain what Cpk is and why it is providing it to the

¹ Several of the graphs show that some of the outages related to the Northeast power failure and Hurricane Isabella were quite long and affected many customers.

reader. NRIC does not explain why it has negative control limits. NRIC did not explain why it presented different SPC graphs at the NRIC meeting from the ones in the text.

If future NRICs, and in particular the FCC, are to make meaningful evaluations on the reliability of the networks covered under the Voluntary Trial, the data collected will have to be dramatically improved. Even if the data problems are resolved, full and complete participation by all companies in the covered industries will be necessary. It is highly unlikely that such full and complete participation will occur as long as the reporting is voluntary.