



**MPSC Case No. U-12320**

**Directory Listings &  
Directory Assistance Database  
Update Accuracy Plan**

**March 13, 2003**

# DL/DA Update Accuracy Plan

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## DL/DA Update Accuracy Plan

### 1. Purpose

The purpose of this plan is to describe the actions Michigan Bell Telephone Company (“SBC”) proposes to take to improve certain aspects of directory listings and directory assistance database (“DL/DA”) accuracy. SBC originally proposed a DL/DA plan on October 30, 2002 (“October 30 Filing”). Pursuant to the Michigan Public Service Commission’s (“MPSC’s”) Order issued January 13, 2003 (“January 13 Order”), in Case No. U-12320 (SBC’s §271 Checklist Compliance Docket), the plan was revised and filed on February 13, 2003 as a draft. The February 13 draft further addressed the operational concerns with DL/DA accuracy identified in BearingPoint’s Report, and those discussed in the technical workshop and submitted in written comments. SBC further modified this plan based on input received during the collaborative session held at the MPSC Offices in Lansing, Michigan on March 4-5, 2003. Additionally, SBC reviewed the changes with the MPSC Staff and collaborative participants on a conference call held on March 12, 2003. SBC has retained BearingPoint to evaluate SBC’s implementation of this plan.

### 2. Issue Definition

BearingPoint, Inc. (f/k/a KPMG Consulting) first raised this issue in Exception 52 as part of the Third Party Operations Support Systems (“OSS”) testing on March 21, 2002 stating that they have observed instances of incorrect updates to SBC’s directory assistance database. In this test, information contained within the directory listings and directory assistance database were evaluated for accuracy against field inputs from submitted Test CLEC orders, i.e., Local Service Requests (“LSRs”). In the course of evaluating this issue, BearingPoint retested DL/DA accuracy three times over a six-month period. On November 11, 2002, SBC requested that no further re-testing be performed, and a final disposition report was issued on November 18, 2002. BearingPoint’s October 30, 2002 Michigan OSS Evaluation Project Report at p. 917 found that test criteria for TVV4-1 was “not satisfied.”

In response to BearingPoint’s evaluation, SBC implemented system modifications and process improvements that improved tested performance from 42.9% to 91.2%; the MPSC found the difference between 91.2% and the 95% benchmark selected by BearingPoint was not indicative of discriminatory behavior<sup>1</sup>. SBC believes that the remaining errors identified in the OSS test are either immaterial in terms of billing or provisioning, or are associated with product ordering scenarios not widely seen in the commercial environment.

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<sup>1</sup> MPSC Report, January 13, 2003, pg. 67 – “[T]he Commission does not believe that the amount by which the benchmark has been missed is of a level of significance to indicate discriminatory behavior on the part of SBC and failure of an opportunity to provide CLECs a reasonable opportunity to compete.”

### **3. Root Cause Analysis**

The process for updating the directory assistance database begins when a CLEC submits a local service request (“LSR”) or a stand-alone directory service request (“DSR”) that requests an update to directory listing (“DL”) names, addresses or telephone numbers. (A Local Number Portability – Only (“LNP-only”)) request requires the CLEC to submit a separate DL service request.). During the process, a directory listing is modified based on the information provided by the CLEC in the LSR or DSR.

As noted above, BearingPoint conducted three separate DL/DA accuracy tests over a six-month period. In keeping with the “military style” nature of the OSS test, these tests were executed in a serial fashion, with each succeeding test validating the changes made by SBC to correct the failures of previous tests. Therefore, all failure points from the first two DL update accuracy tests that were not identified by BearingPoint in its report of the third and final test can be considered properly corrected by SBC and validated by BearingPoint. Accordingly, SBC’s root cause analysis focuses on the remaining failure points of the third test.

The results of the third DL update accuracy test, as reported by BearingPoint, show orders failing to accurately update the Directory Assistance Database. In its analysis of these results, SBC determined that the primary cause of DL/DA update inaccuracies was intermittent errors on manually handled orders and generally associated with complex listings<sup>2</sup>. In other words, the majority of the identified errors were caused by service representatives handling complex listings.

### **4. Actions**

The plan for DL/DA update accuracy proposed by SBC in its October 30 Filing was constructed to address the reliability and accuracy of manual service orders. The plan included systems modifications, manual process updates, and the development and delivery of a quality awareness training package to the hundreds of SBC service representatives that handle CLEC service orders. Additionally, it called for the implementation of a service order quality review process consisting of reviews of daily production service orders, corrections of identified errors, and coaching and/or process/system improvements based on data gathered from the review process.

The MPSC in its January 13 Order indicated that the DL/DA update accuracy plan should be expanded, to the extent possible, to address the specific comments of AT&T. In reference to the DL/DA update accuracy plan, AT&T made reference to: how the system enhancements address the issues at hand; when and where the issues at hand originated; the purpose of the manual work-around and how it is different from current

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<sup>2</sup> An example of a Complex listing is a caption listing that has one or more indented listings grouped (or captioned) beneath the main listed name. This is mainly used for hospitals, schools and government agencies.

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practices; the limited nature of the long-term mechanism as it applies to one error type; as well as, the same issues raised with the Customer Service Inquiry (“CSI”) Accuracy Plan (the content of the service representative training package, the period of the training, the scope of the quality improvement effort, a commitment by SBC to fix errors identified as part of its quality review, the scope of testing<sup>3</sup>, and the potential need for a performance measure<sup>4</sup>). SBC has addressed the requirements of the MPSC and responded to the comments of AT&T in the following enhanced plan.

SBC is taking the following steps to improve the accuracy of DL/DA:

### 1. System and Process Enhancements

- SBC installed vendor software updates to allow automated daily transfers of Mechanized Order Receipt (“MOR”) files to the Advance Listing Products and Services System (“ALPSS”) in December 2002.<sup>5</sup>
  - This automated task replaces a manual process that was performed periodically throughout the day and occasionally executed prior to the MOR data being available, thus delaying the update.
  - This enhancement will ensure an improvement in timely receipt of mechanized order, as manual intervention will be minimized/eliminated.
- SBC implemented an interim manual work process in December 2002, to resolve ALPSS errors identified in the “Skipped Section Report”<sup>6</sup> within three business days.<sup>7</sup>
  - This new daily work process will ensure the minimization of “Skipped Section Report” backlogs and, in turn, will improve the timely handling of errors identified by ALPSS. As result, the DL/DA update accuracy will improve through better error handling.
- SBC will implement a long term mechanical process to route orders identified by the “Skipped Section Report” into the established ALPSS error handling process by March 1, 2003.<sup>8</sup>

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<sup>3</sup> However, as noted below, BearingPoint will conduct an evaluation based on sampling of actual commercial production orders that include a diverse set of product and listings types.

<sup>4</sup> See AT&T’s comments filed 11/15/02, Connolly affidavit at pg. 23, ¶¶ 57-61. SBC does not believe that a separate performance measure is necessary. Performance measure changes are discussed in the performance measure six-month review; one of which has just concluded.

<sup>5</sup> See AT&T’s comments filed 11/15/02, Connolly affidavit at p. 25, ¶ 57. SBC has provided detail on the vendor updates and the issues that it addresses. This update address all non-UNE-P and non-resale order issues identified in the BearingPoint test since these other orders are transmitted directly to ALPSS from MOR.

<sup>6</sup> The “Skipped Section Report” is produced daily and contains service orders which could not be added to the APLSS system due to unanticipated error conditions (e.g. duplicate telephone number, corrupted data, etc). This report is used to investigate the root cause and the necessary corrective action to resolve these errors.

<sup>7</sup> See AT&T’s comments filed 11/15/02, Connolly affidavit at p. 26, ¶ 58. SBC has provided details explaining the issue being addressed by the interim manual process.

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- While not replacing the “Skipped Section Report” manual work process, this enhancement will further automate the ALPSS error handling and minimize manual processes by better identifying errors that would otherwise be handled manually.

### **2. Service Representative Training**

SBC developed for Local Service Center (“LSC”) service representatives a Service Order Quality informational package<sup>9</sup> directed at improving service representative order accuracy. The package is similar in form to the Student Guides provided during training to service representatives involved in producing SBC Customer Information System (“ACIS”) service orders. This package provides information such as the importance of accurate orders, and the impacts of inaccurate orders on CLECs and end-users. The package includes service order examples and a listing of available on-line resources. This package was completed December 31, 2002, and applies across the entire SBC Midwest region.

- Starting in January 2003<sup>10</sup>, service representatives will receive training using the Service Order Quality informational package.
  - The training is scheduled to be completed by May 31, 2003 with a majority of targeted Service Representatives trained by March 31, 2003.
  - The intended audience for training is service representatives that produce and process Resale and UNE-P service orders for the ACIS system.
  - Review of the package is accomplished in mandatory training sessions facilitated by SBC’s Training Department. Logs will be maintained to track attendance and manage attendance compliance.
  - A General Manager, Area Manager or Line Manager will address each class with a list of Talk Points to emphasize management’s commitment to service order accuracy.

### **3. DL/DA Quality Review**

- SBC is designing an internal quality review process for DL/DA accuracy<sup>11</sup>. This review will rely on sampling UNE-P and Resale production service orders that drop

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<sup>8</sup> See AT&T’s comments filed 11/15/02, Connolly affidavit at p. 26, ¶ 59. SBC has provided details explaining what the long term mechanism addresses.

<sup>9</sup> See AT&T’s comments filed 11/15/02, Connolly affidavit at pg. 19, ¶ 43. SBC has expanded the detail provided in this plan to address the description of the information contained in the training package as well as its goal, and inclusion of a review of that information package by the third party contractor.

<sup>10</sup> See AT&T’s comments filed 11/15/02, Connolly affidavit at pg. 20, ¶ 44. SBC has expanded the detail provided in this plan to address specific timeframes for each action item, including component items of each action item.

<sup>11</sup> See AT&T’s comments filed 11/15/02, Connolly affidavit at pg. 21, ¶ 46. SBC has expanded the detail provided in this plan to address the description of how SBC is designing its quality review process, including sampling, frequency, timing, and how accuracy will be determined, as well as describing the purpose of this type of quality review process. SBC is unable to comment on how the third party may design its sampling plan.

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to manual handling (“manual-manual” and “auto-manual”) to monitor DL/DA accuracy<sup>12</sup>. The intent of the sampling activity is to assist in identifying potential problem areas in the manual processing of these orders. While SBC initially intends to conduct this sampling activity in a statistically valid manner by randomly selecting 150 orders each month from the total population under review, it may determine the need to modify this activity to meet its ultimate goal: Monitoring the effectiveness of its training and helping identify potential corrective actions. In fact, as a result of discussions during the March 4 - 5, 2003 collaborative session, SBC agreed to augment its sample of 150 orders to include at least 10 complex orders each month. These quality reviews will be conducted on an ongoing basis. Initially, the reviews are intended to be conducted daily.

- Samples of orders will be pulled based on information in a reporting system called the Local Service Center Decision Support System (“DSS”). DSS is a reporting system used by the LSC to track and capture information on order activity. The DSS system is separate from the systems that process the actual production order.
- The criteria for sampling will include product type and process type. Sampled orders will come from both manual-manual and auto-manual orders.
- Quality Assurance (“QA”) service representatives, experienced service representatives selected for this purpose, will conduct reviews using methods and procedures developed specifically for this process.
- Potential order discrepancies will be reviewed to:
  - Verify that discrepancies are in fact errors;
  - Correct identified errors on pending orders;
  - Identify root causes of errors;
  - Provide the basis for individual coaching of service representatives.
- The QA service representatives will compare the CLEC Local Service Request to the corresponding internal service order on a field by field basis. Corrections will be made as necessary.

#### 4. Corrective Actions

- SBC plans to address discrepancies identified during its quality reviews as described above<sup>13</sup> in the following manner:

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<sup>12</sup> See AT&T’s comments filed 11/15/02, Connelly affidavit at pg. 20, ¶ 45 and pg. 22, ¶ 50. During the BearingPoint test, only the UNE-P and Resale product types did not meet BearingPoint’s benchmark. One issue had been identified in relation to unbundled loops during the test; however, that issue was corrected and the correction confirmed by BearingPoint. Thus, it is unnecessary to re-test all product types.

<sup>13</sup> See AT&T’s comments filed 11/15/02, Connolly affidavit at pg. 21, ¶ 47 and pp. 19-22, ¶¶ 42, 45, 48, and 49. SBC has recognized that errors have been caused by manual handling of orders; thus, the emphasis on the training package and dissemination of same to LSC service representatives. The quality review process will address accuracy improvement and maintenance. SBC has expanded the detail provided in this plan to address the description of how SBC will use the information collected from the quality review process to institute correction of identified errors, provide service representative coaching, as well as to ascertain needed improvements in processes, systems, and/or training.

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- Review results will be documented in a new LSC database to track performance, identify trends, and provide reports for LSC management.
- Information on the errors and root cause(s) identified will be analyzed using tracked data to ascertain if common issues or trends are apparent.
- This information will be used to determine whether individual service representative coaching is needed, or if additional training, and/or changes to processes, and/or methods and procedures, and/or systems are needed. SBC will implement appropriate corrective actions as warranted, including changes to processes, systems and/or additional training.

The following table provides the schedule for the actions discussed in this section:

Task	Begin	End	Status
<b>System-Related Tasks</b>			
1. Implement system changes to allow automated daily file transfers of MOR files to AAS/IT	10/28/02	12/31/02	Completed
A. Develop and test AAS/IT Interface software modification	10/28/02	11/01/02	Completed
B. Develop MOR Interface modification	10/28/02	11/01/02	Completed
C. Install MOR Interface modification	11/10/02	12/31/02	Completed
2. Implement interim manual work process for ALPSS errors identified in the "Skipped Section Report" within three business days	10/01/02	Ongoing	In progress
A. Review existing process to determine backlog avoidance	10/01/02	11/01/02	Completed
B. Implement interim manual work process	11/01/02	12/01/02	Completed
C. Managers report weekly backlog information (numbers, age, etc.)	12/01/02	Ongoing	In progress
D. Manager evaluates "Skipped Section Report" and takes action to ensure a backlog does not occur	12/01/02	Ongoing	In progress
3. Implement system changes to ALPSS error handling process to route listings identified by the "Skipped Section Report"	11/13/02	03/03/03	Completed
A. Receive ALPSS new software version from vendor	11/13/02	11/13/02	Completed
B. Perform testing	11/14/02	02/02/03	Completed
C. Installed in production	03/01/03	03/03/03	Completed
<b>Quality Assurance-Related Tasks</b>			
1. Develop Service Order Quality informational package and provide training to all LSC UNE -P and Resale Service Representatives.	11/15/02	5/31/03	In progress

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Task	Begin	End	Status
A. Determine and assign resource to lead "informational package" development effort	11/15/02	12/31/02	Complete
B. Produce "informational package"	12/01/02	12/31/02	Complete
C. Determine training deployment method	12/01/02	01/06/03	Complete
D. Create training schedule or plan	12/01/02	01/14/03	Complete
E. Conduct training	01/15/03	05/31/03	In progress
2. Design and implement a quality review process for validating the accuracy of the ACIS DL/DA record updates, which includes both sampling and quality reviews of Unbundled Network Elements – Platform (“UNE-P”) and Resale orders.	12/15/02	Ongoing	In progress
A. Design quality review process	12/15/02	1/31/03	Complete
B. Implement daily quality review of Resale and UNE - P orders	02/03/03	Ongoing	In progress
3. Identify root causes of errors identified by quality review and sampling processes	12/15/02	Ongoing	In progress
A. Develop identification and tracking process	12/15/02	2/5/03	Completed
B. Identify training or other 'correcting' opportunities	02/03/03	Ongoing	In progress
C. Implement corrective actions	02/03/03	Ongoing	In progress

## 5. Third Party Examination Approach

This plan will be evaluated by a third party. While the third party selected will design its own work program and parameters, SBC anticipates that the third party evaluation will address and include a process evaluation and a review of actual commercial transactions as follows:

- The third party will evaluate SBC’s implementations of the actions described in this plan by reviewing documents, conducting interviews, and performing site visits. This evaluation will include a review of SBC's quality review results. SBC expects this process evaluation to begin shortly after the MPSC approves this plan with a final report pursuant to BearingPoint’s project plan.
- The third party will report the accuracy of DL/DA updates by comparing updates with local service requests using an unbiased sample from the entire population of commercial production in the SBC Midwest region. The sample design and the evaluation methodology for this transaction analysis will be reviewed with SBC and with the MPSC staff prior to its implementation. SBC expects BearingPoint will begin its analysis of commercial production transactions no later than July 1, 2003 with a final report pursuant to BearingPoint’s project plan. This accuracy of DL/DA updates is expected to improve when compared to BearingPoint’s test results of 91.2% accurate. SBC’s target is 95% accuracy. If the third party evaluation does not

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show the target has been achieved, any further required action will be determined by the MPSC.

- SBC will file bimonthly third party reports beginning with April-May 2003 period, to be filed by June 15<sup>th</sup>, until final process and transactions reports are completed. These reports will be filed with the Commission by the 15<sup>th</sup> of the following month and served on the parties of record for MPSC Case No. U-12320.