D. Maintenance and Repair

Available Interfaces

All SBC/Ameritech service areas offer application to application and GUI maintenance and repair interfaces. Ameritech, PB/NB, and SWBT all support application to application interfaces for Electronic Bonding Trouble Administration (EBTA) based on the American National Standards Institute (ANSI) Standards. SNET offers a non-standard application to application interface, MSAP, to support maintenance and repair functions. All service areas in SBC/Ameritech have developed their own GUI interface. Each GUI interface supports various functions with different presentations to the end user.

PB/NB offers Pacific Bell Service Manager (PBSM). It allows a customer to: Create a trouble report, view trouble history, retrieve trouble status and perform MLT tests on Resale POTS and loop with port.

SWBT offers Toolbar/Trouble Administration. It allows a customer to: Create a trouble report, view trouble history, retrieve trouble status and perform MLT tests on Resale POTS and loop with port.

SNET offers CCTools, which allows a customer to view trouble history and retrieve trouble status for resale POTS products.

Ameritech offers EBTA GUI. It allows a customer to: Create a trouble report, view status history, receive proactive status, clear and close trouble reports. It provides similar functionality to the application to application interface.

The following table is a summary of the maintenance and repair application to application and GUI interfaces in the various SBC/Ameritech service areas.

SYSTEM	SWBT	PB/NB	SNET	Ameritech
APP -TO-APP	System: Electronic Bonding – TA T1.262:1998 (Release 4.5 8/99) T1.227:1995 T1.227A (Release 5.1 10/99) T1.228:1995 Release 4.1.0	System: Electronic Bonding – TA T1.262:1998 (Release 4.5 8/99) T1.227:1995 T1.227A (Release 5.1 10/99) T1.228:1995 Release 4.1.0	System : MSAP EDI format Release: N/A	System: Electronic Bonding – TA T1.227:1995 T1.227A (Release 5.1 10/99) T1.228:1995 Release: 5.0
GUI	System: Toolbar / TA Create Trouble Reports MLT Test POTS / loop with port View trouble history View status View trouble report list. Clear and Close GUI-Windows Based Release 5.1.0	System: PBSM Create Trouble Reports MLT Test POTS / loop with port View trouble history View status View trouble report list. Telnet –VT100 Terminal Emulation Release: 8.3	System: CCTools View trouble history View status GUI-Windows based Release: NA	System: EBTA GUI Create Trouble Reports View status history Receive status View status View trouble report list. Clear and Close GUI-Windows Based Release: 1.0

The following table shows the business functions that can be performed by the various service area-specific GUIs. The business functionality and the screen designs are different for each service area. In most cases the information entered into the fields on the GUI is mapped to data fields in the back end Operating Support Systems (OSS).

FUNCTION	SWBT (TOOLBAR – TA)	PB/NB (PBSM)	SNET (CCTOOLS)	Ameritech (EBTA GUI)
Create				
Circuit Types (Telcordia valid circuit ids)	Yes	Yes	No	Yes
Access Hours (test and premise access hrs)	Yes	Yes	No	Yes
Narrative	Yes	Yes	No	Yes
Trouble Type	Yes	Yes	No	Yes
Dispatch Authorization	Yes	Yes	No	Yes
Contact information	Yes	Yes	No	Yes
TSP Priority	No	No	No	Yes
Status Interval	No	No	No	Yes
Comments /Notes	No	No	No	Yes
Cancel	No	No	No	Yes
Modify info after create	No	No	No	Yes
Messaging	Yes	Yes	No	Yes
Get Status (refresh)	Yes	Yes	Yes	Yes
Modify	No	No	No	Yes
Proactive Statusing	No	No	No	Yes
Escalations	No	No	No	Yes
Clear / Close	No	No	No	Yes

History	Trouble	Trouble	Trouble	Ticket Status
MLT Test	Yes	Yes	No	No
Status notification	No	No	No	Yes
Estimated Repair Time	No	No	No	Yes
WEB Version	No	No	No	Yes
Circuit Security Supports MCN, ACNA, or CCNA	Yes	Yes	No	Yes (except MCN)
Close out Narrative	Yes	Yes	No	Yes
Circuit Inventory	Yes	No	No	No
Binding Post	No	Yes	No	No

E. Billing

CLEC billing has been organized into five categories:

- Billing Data Tape (BDT)
- Exchange Message Interface (EMI) Daily Usage
- Electronic Data Interchange (EDI)
- Online Viewing/GUI
- Product Billing System Alignment

Billing Data Tape (BDT)

All SBC/Ameritech service areas provide CLECs with billing data related to their purchase of unbundled network elements (UNEs). The primary billing vehicle for billing UNEs is Carrier Access Billing System (CABS), which produces the BDT file format. All service areas adhere to the same CABS Billing Output Specifications (BOS) national guidelines for bill media, software version control, user documentation, and user notification. Additionally, all SBC/Ameritech service areas provide BDT data on comparable output media that include electronic transmission and tape.

All the SBC/Ameritech service areas use Billing Output Specifications (BOS) developed guidelines. A 'differences list' is produced with each BDT change outlining where and why a service area may deviate from standards. Only those BDT records that are applicable to a given service area are produced by that service area. Additionally, any fields on a record that do not apply to a service area are populated with a default value.

Three months prior to the first possible implementation of a change to the Billing Data Tape, a letter is sent to the customers identifying the changes and any deviations from standards. This is standard across all service areas.

There are differences in the BDT records produced for CLECs across the SBC/Ameritech service areas, but these are due largely to service area-specific tariff and contracts and will continue to exist.

Exchange Message Interface (EMI)

SBC/Ameritech has a responsibility to provide CLECs with usage messages that may be used in the billing of their end-customers. The CLECs receive usage files containing EMI records that provide the billing details for individual messages. All SBC/Ameritech service areas follow industry-accepted Ordering and Billing Forum (OBF) EMI format for message exchange.

At the inception of local exchange competition, Incumbent Local Exchange Carriers (ILEC) independently worked with CLECs to interpret the application of the OBF EMI guidelines, due to lack of complete and definitive industry guidelines. These service area-specific interpretations resulted in the population of EMI records that currently differ somewhat amongst the SBC/Ameritech service areas.

Some service area-specific products have caused a need for locally negotiated records. There has been no need for industry standard records for these local products. The records will continue to be provided in the daily usage file.

The following table summarizes the existing functionality by service area. Where (n/a) is noted, products have not been developed in that service area.

Existing Functionality by Service Area				
Function	**SWBT**	**PB/NB**	**SNET**	**Ameritech**
Bill Media & Version				
EMI records sent to CLECs in Daily Usage Extract:				
Header/Trailer	20-20-01/02 20-21-01/02 20-24-01/02	20-21-01/02 20-21-09/10	20-21-01/02	20-24-01/02
Toll	10-01-01	10-01-01	10-01-01 *Operator handled only	10-01-01
Specialized Services - Custom calling features	10-01-18	10-01-18	10-01-18	10-01-18
New Class feature record	n/a	10-01-19	n/a	n/a
Local	10-01-31	10-01-31	10-01-31	10-01-31
D/A	10-01-32	10-01-32	10-01-32	10-01-32
Operator Verification	10-01-35	10-01-35	10-01-35	10-01-35
Operator Interrupt	10-01-37	10-01-37	10-01-37	10-01-37
Credits	03-01-01	41-xx-xx 03-01-01	03-01-01	41-xx-xx
Switched Data services	01-01-62	n/a	01-01-62	n/a
UNE Specific Records: CABS MTS, Terminating IntraLATA UNE	11-01-01	11-01-01	n/a	n/a
UNE Originated, International Terminated	11-02-01	n/a	n/a	n/a
Terminating Local UNE	11-01-31	n/a	n/a	n/a
D/A (carrier involved)	11-01-32	n/a	n/a	n/a
Terminating Access	11-01-20	n/a	n/a	n/a
Originating 800	11-01-25	11-01-25	n/a	n/a
Originating 500	11-01-26	n/a	n/a	n/a
Guidelines	• Follows the industry accepted OBF EMI format for message exchange.	• Follows the industry accepted OBF EMI format for message exchange.	• Follows the industry accepted OBF EMI format for message exchange.	• Follows the industry accepted OBF EMI format for message exchange.

Existing Functionality by Service Area				
Function	**SWBT**	**PB/NB**	**SNET**	**Ameritech**
Delivery Media	• Tape • Connect: Direct • Dial Up	• Tape • Connect: Direct	• Connect: Direct	• Tape • Connect: Direct • Dial Up
User Guide – media offer on	SWBT/Inter-industry web site or Email from Account Manager	PB/NB has a CLEC handbook that is available on-line to the CLECs on the internet.	CLEC Guide published via internet. It is routinely maintained	The Ameritech user guide is offered on the internet.
User Guide – Publication notification process	CLECs are notified through an accessible letter 60 days in advance of any changes to EMI records that could impact them	CLECs are notified through an accessible letter 120 days in advance of any changes to EMI records that could impact them	CLECs are notified through an accessible letter 60 days in advance of any changes to EMI records that could impact them	CLECs are notified by letter at least 45 days prior to any change in the EMI records that could impact them. Changes are posted to the TCNet web site.

Electronic Data Interchange (EDI)

The SBC/Ameritech service areas provide CLECs with billing information that originates from their core retail billing systems representing primarily the Resale of local exchange service. Currently, the SWBT and PB/NB service areas provide this billing information following the EDI 811 transaction set, following Telecommunications Industry Forum (TCIF) guidelines (Issue 9) for billing transactions. The other two service areas, Ameritech and SNET, are currently providing Resale billing information under a Telcordia (Bellcore) standard, that is no longer supported by Telcordia.

Online Viewing/GUI

The SWBT service area offers the Bill Info GUI application that provides on-line access to billing information. This GUI application provides on-line access to the image of the CLEC's rendered bill. CLECs have made minimal use of the capability. Recent collaborative meetings with representatives of the CLEC community did not identify an interest in on-line access to the rendered bill.

Product Billing System Alignment

Initial decisions on the system most appropriate to bill wholesale local exchange services were based largely on each individual service area's existing system attributes. Despite being developed on different platforms, the resulting billing outputs utilize consistent formats (e.g., EDI or BDT) across the service area.

Billing systems for the Unbundled Network Elements (UNEs) across the four service areas are in alignment, with the exception of Ameritech's Line-Side Ports. Ameritech bills the Line-Side Port through the Ameritech Customer Information System (ACIS), a CRIS-like billing system, where other service areas bill through CABS. The unbundled products offered by Ameritech utilizing Line-Side Port and billed through ACIS include Unbundled Local Switching, Shared Transport, and Combined Platform Offering (i.e., UNE-Platform).

Billing for all Resale products across the four service areas are in alignment.

Summary of CLEC Billing Interfaces and Product Billing System Alignment

The two tables below summarizes the currently available interfaces, versions and bill delivery methods previously described as well as the existing product billing system alignment, respectively.

Current Available Billing Interfaces by Service Area				
Billing	**SWBT**	**PB/NB**	**SNET**	**Ameritech**
EMI	Record Format: EMR/EMI	Record Format: EMR/EMI	Record Format: EMR/EMI	Record Format: EMR/EMI
(for Daily Usage Delivery)	Transmit to CLEC	Transmit or tape to CLEC.	Transmit to CLEC.	Transmit or tape to CLEC by State.
BDT	System: CABS	System: CABS	System: CABS	System: CABS
	Standard/Format: Billing Data Tape (BDT)	Standard/Format: Billing Data Tape (BDT)	Standard/Format: Billing Data Tape (BDT)	Standard/Format: Billing Data Tape (BDT)
	Version 32	Version 32	Version 32	Version 32
EDI/AEBS	System: Electronic Data Interchange Billing (EDIB)	System: Electronic Data Interchange Billing (EDIB)	System: Customer Records & Information System (CRIS)	System: Ameritech Billing Management System (ABMS)
	Standard: EDI 811	Standard: EDI 811	Standard: Bellcore Magnetic Billing Tape Plan	Standard: Bellcore Magnetic Billing Tape Plan
	Record Format: 4010	Record Format: 4010	Record Format: AEBS 450	Record Format: AEBS 450
	Same Info as Paper Bill	Same Info as Paper Bill	Detail Supporting Summary Paper Bill	Detail Supporting Summary Paper Bill
	Transmitted to CLEC	Transmitted to CLEC	Magnetic Tape or Cartridge	Offer Transmit & Alternative Media
Online Viewing	System: TOOLBAR/Bill Info Function: CLEC can view Resale & UNE bill including payments/adjustments, CSR, and Subscription reports.	None	None	None

Product Billing System Alignment by Service area				
Product	**SWBT**	**PB/NB**	**SNET**	**Ameritech**
Resale Residence Basic Exchange	CRIS	CRIS	CRIS	ACIS/RBS
Resale Business Basic Exchange	CRIS	CRIS	CRIS	ACIS/RBS
Resale Complex Business	CRIS	CRIS	CRIS	ACIS/RBS
Interim Number Portability	CABS	CABS	CABS	ACIS/RBS
UNE - Port	CABS	CABS	CABS	LINE: ACIS; TRUNK: CABS
UNE – Loop	CABS	CABS	CABS	CABS

UNE – Loop with Number Portability	CABS	CABS	CABS	INP: ACIS; LOOP: CABS
UNE – Loop with basic Port	CABS	CABS	Not Supported	No Product
Unbundled Dedicated Transport	CABS	CABS	CABS	CABS
Blended/ Shared Transport	CABS	CABS	CABS	ACIS/RBS
CLEC Training and Other Miscellaneous Charges	Paper CRIS Bills	Paper CRIS Bills		

F. Connectivity

Although all service areas within SBC/Ameritech currently offer CLECs connectivity to OSS, there are some differences in the form of connectivity offered, the type of facility utilized, and the ownership and maintenance of connectivity equipment.

In both its SWBT and PB/NB service areas, SBC/Ameritech currently has a Remote Access Facility (RAF) that is solely dedicated for CLEC use in accessing SBC's OSS. The SWBT facility, known as the LRAF, is located in Dallas, Texas, while the PB/NB facility, called the PRAF, is centered in Fairfield, California.

Both the LRAF and PRAF are configured with a number of routers capable of terminating private line and frame relay connections and with access servers to terminate analog modem and ISDN dial-up connections. These terminating routers and access servers are connected to a Local Area Network (LAN) which in turn provides for connectivity to the SBC/Ameritech network "firewall" systems. These secured firewalls use access lists to prevent unauthorized entry into other internal SBC/Ameritech systems that are outside the scope of those OSS offered to CLECs.

Routers for the LRAF and PRAF are provided and maintained by SWBT and PB/NB. CLECs provide their own circuit, Data Service Unit/Channel Service Units (DSU/CSUs), connectors and cables. Specifications are given to the CLEC for the DSU/CSUs (to be placed on both ends of the CLEC provided circuit) and as well as circuit line coding and framing parameters.

SNET currently allows access to its OSS via their New Haven, Connecticut network connectivity location, but does not maintain a separate facility dedicated just for CLEC use. Private line and shared frame relay connections are allowed, but dial-up access is not available. CLECs must provide and maintain their own router and CSU/DSU. Hence, CLECs are given access to SNET's premises to install and maintain their own equipment. As part of the SNET merger initiative, work was done during 1999 to establish a dedicated facility (to be called the SRAF) for CLEC use within the SNET service area. The building and testing of the private line and frame relay portion of the SRAF is slated to take place during the first quarter 2000, with plans to secure and install the addition of access servers to terminate analog modem and ISDN dial-up connections shortly thereafter.

CLEC connectivity to most of Ameritech's OSS is via private line or frame relay. However, some applications are accessed via the Internet, where security is provided via the use of Digital Certificates. For private line or frame relay connections, CLECs must provide their own CSU/DSU, which is then installed and maintained by Ameritech personnel. Ameritech provides connectivity to its OSS via either its Chicago, Illinois or Southfield, Michigan Electronic Commerce Network (ECN) rather than through a separate facility dedicated for CLEC use.

The table below compares the present method of operation and the varying connectivity-related items within the four SBC/Ameritech service areas.

Item/Function	SWBT	PB/NB	SNET	Ameritech
Dedicated CLEC Facility	Yes	Yes	No	No
Private Line / Frame Relay connections	Yes	Yes	Yes	Yes
Dial-up Connections	Yes	Yes	No	No
SBC/Ameritech provides and maintains routers	Yes	Yes	No	Yes
CLEC provides circuit and CSU/DSUs	Yes	Yes	Yes	Yes
SBC/Ameritech installs and maintains CSU/DSUs	Yes	Yes	No	Yes
Internet access using Digital Certificates	No	No	No	Yes

III. FUTURE METHOD OF OPERATION (FMO)

A. Overview

The following section details SBC/Ameritech's plans for developing and deploying commercially ready, uniform application-to-application and GUI interfaces. As set out below, these plans are based on modifications and enhancements to existing OSS interfaces that were identified during the course of the PMO evaluation described in Section II.

Standards

The uniform interfaces contained in this POR incorporate current industry standards and guidelines. However, SBC/Ameritech will modify these interfaces to keep current with all new industry guidelines and standards. For example, SBC/Ameritech will adopt LSOG 5 once it is adopted by the industry and will implement LSOG 5 in compliance with the timelines established in the CMP. CLECs will be allowed the option to defer and move to the next LSOG version. LSOG 5 and all subsequent LSOG versions will be adopted by SBC/Ameritech pursuant to the versioning process adopted in OBF 1581.

If SBC/Ameritech believes that an exception to an industry standard or guideline is warranted, it will not adopt such an exception unilaterally; it will follow the CMP for a determination of whether an exception is to be implemented. If no industry guidelines exist, SBC/Ameritech will work through the CMP to obtain CLEC consensus on interim guidelines to implement until industry guidelines are adopted.

To bring the Ameritech service area pre-ordering and ordering capabilities to a level of comparability with those in the SWBT and PB/NB regions, SBC/Ameritech will implement a release that "catches up" with the capabilities in the other regions. These functionality additions in the Ameritech region would allow CLECs in the region to operate with similar access to OSS that SBC has made over the past several years, during which time Ameritech did not make improvements to its OSS to implement industry standards or take advantage of technological innovations.

The planned modifications and enhancements outlined below are wholly consistent with standards and guidelines of the industry bodies specified in the Merger Conditions and discussed in Section II. The specific versions of the standards and guidelines that will apply to this deployment are identified in the following table:

Function	Applicable Standard(s)
Pre-ordering, Ordering and Provisioning	• OBF LSOG 4 or AST 21 • SOSC ELMS 4x12x4020 • A-X12, Ver 4020 • ECIC T1.265-1999 • ECIC T1.267-1999
Repair and Maintenance	• T1M1 T1.227a-1998 • T1M1 T1.228-1995 • T1M1 T1.262-1998
Billing	• OBF BDT 32 • OBF EMI Version 17

	• TCIF Billing Issue 4010

Development Timeline

The development timeline associated with the deployment dates established for all releases will be governed by the terms of the CMP. The deployment of the uniform application to application interfaces will be considered Category One (Gateway) changes for the purposes of Change Management. The uniform GUI interfaces will be enhancements of existing GUI interfaces and therefore will be considered as Category Two (GUI) changes.

A 12-month OSS interface development view will be shared during the CMP meetings. SBC/Ameritech will issue final business rules and EDI specifications 6 months prior to SBC/Ameritech's implementation date of an LSOG upgrade. CLECs will have a 2-month testing window to ensure adequate preparation of test cases, test result analysis and potential fixes. SBC/Ameritech will implement the LSOG upgrade no later than 6 months after CLEC testing.

In addition, CLECs will be given sufficient lead-time to prepare for changes affecting the interfaces between SBC/Ameritech and the CLECs. Changes will be categorized and scheduled according to the magnitude of the change. The range of factors which must be considered in determining the priority and release date should include but not be limited to the degree of complexity, degree of impact to systems, business and system need for the change and the regulatory and merger time commitments. This process will be part of the CMP.

The followings steps will occur, pursuant to either the following time periods or the time periods established pursuant to the CMP process, whichever time period is greater.

1. SBC/Ameritech will distribute the Change Request 4 months prior to release implementation.
2. SBC/Ameritech and the CLECs will meet to establish a common understanding of the changes 3.5 months prior to release.
3. SBC/Ameritech will solicit feedback from the CLECs 3 months prior to release.
4. SBC/Ameritech will release final specifications 2 months prior to release.
5. A testing prior of at least 30 days will occur prior to release.

. For the GUI interfaces, Initial Release Specifications will be provided twenty-one days in advance of deployment, and will include uniform User Guide documentation. In some service areas, a uniform GUI will be the initial introduction of the GUI to that specific service area. In those cases, a special CLEC meeting will be held in advance to demonstrate the existing GUI and to explain planned enhancements to migrate it to the uniform GUI.

Additional detail and requirements on all planned releases will be made available per the Change Management Process. This process also allows for ongoing clarification and CLEC input through comment cycles prior to implementation of the releases.

Each application to application interface release version will be made available for CLEC testing thirty-seven days in advance of the production deployment date.

During the period of this plan, it is anticipated that forces other than this plan will cause additional changes and enhancements to the ordering application to application and GUI interfaces offered to CLECs by SBC/Ameritech. Consistent with the CMP, as these changes and enhancements are known, release announcements will be issued by SBC/Ameritech and the OSS 12-month view will be revised.

Versioning

All SBC/Ameritech service areas will have a uniform versioning process for the uniform application to application interfaces. The process will be employed as defined in the SBC Competitive Local Exchange Carrier (CLEC) Interface Change Management Process. The uniform versioning process will be implemented as indicated on the timelines provided in the Implementation Timeline and High-level Milestones section of that plan. SBC/Ameritech will adopt the versioning process contained in OBF Issue 1581.

CLEC Joint Testing

All SBC/Ameritech service areas will provide for a uniform SBC/Ameritech-CLEC Joint Testing process for the uniform application to application interfaces that employs a stable test environment, which mirrors the production environment. The testing environment will provide CLECs with the necessary resources that will support ongoing testing of the in-service interfaces and systems by assuring that the test environment mirrors the production environment. Testing of new releases will be separately made available for the period immediately preceding the implementation of the new releases. The process will be employed as defined in the CMP. The uniform testing process will be implemented in conjunction with the uniform versioning process as indicated on OBF Issue 1581.

B. Pre-ordering

All SBC/Ameritech service areas will implement a single uniform version of their existing application to application pre-ordering interface which CLECs can access using both EDI and CORBA protocols. This interface version will utilize industry guidelines and standards, and will be based on OBF LSOG version 4. The EDI access will be based on TCIF ELMS 4 and the associated ASC X12 version 4020. The CORBA access will be based on the ECIC T1.265-1999 and T1.267-1999 standards. The uniform pre-ordering application to application interface which will utilize EDI and CORBA will be referred to as the "application to application interface" in the remainder of this pre-ordering section of this plan.

All SBC/Ameritech service areas will implement a uniform integrated Pre-ordering/Ordering GUI to access pre-ordering and ordering functions. The GUI, which will be an enhanced and integrated version of the Verigate and LEX applications currently offered by SBC/Ameritech in the SWBT and PB/NB service areas, will have a presentation that makes use of the terminology employed in OBF LSOG version 4, and have functionality similar to that offered via the uniform application to application interface. Attached to this document is the User Guide for the existing Verigate application (see Attachment B). The uniform pre-ordering/ordering GUI will be referred to as the "GUI" in the remainder of this pre-ordering section of this plan. Additionally, Datagate will continue to be made available and will be modified to support any enhancements made to either EDI/CORBA or the GUI.

There are multiple phases scheduled for the implementation of the uniform pre-ordering interface during the twenty-four months following the SBC/Ameritech merger close.

The first will be the introduction of new functions to the current EDI application to application interface in the Ameritech service area. These pre-ordering functions, Connecting Facility Assignment Inquiry, Feature/Service Availability, and Network Channel/Network Channel Interface Inquiry, will be made available to provide interactive access to data previously provided by Ameritech through other means. These functions will be available in April 2000.

This will be followed by the introduction of the uniform version of the EDI/CORBA application to application interface in two phases. The interface will be implemented in the Ameritech and SNET service areas in March 2001, and in the SWBT, and PB/NB service areas in June 2001. This version of the interface will provide full uniform functionality, and will update the interface to LSOG 4 unless another guideline version is selected via the Change Management Process. It will include CORBA as an alternative to EDI.

Coincident with the implementation of the uniform version of the application to application interface in each service area, the uniform version of the pre-ordering/ordering GUI will also be made available.

Uniform Pre-ordering Message Flows

The uniform EDI application to application interface will utilize ASC X12 transaction sets to pass information between requestor and provider using the 850 and 855 transaction sets. A typical pre-ordering transaction will begin when a CLEC submits an 850 purchase order. Responses, whether

positive or negative, will be returned to the CLEC via an 855 purchase order acknowledgement. Due to the interactive nature of the pre-ordering functions and a desire for consistency across the SBC/Ameritech 13 state service area, the 997 functional acknowledgement transaction set will not be used. Also, the 855 purchase order acknowledgement will be used, instead of the 864 text message, to return customer service information.

The uniform CORBA application to application interface will employ T1M1 IDL data models in a request-response message flow to exchange data between a message requestor and provider.

Uniform Pre-ordering Functions

The following pre-ordering functionality is planned for the uniform application to application and GUI interfaces. These functions will be available via the application to application interface in both EDI and CORBA. In order to understand and describe the data field-level specifications for the uniform pre-ordering interfaces, SBC/Ameritech has analyzed a single function (Feature/Service Availability) and developed a proposed uniform specification for that transaction (see Attachment C). SBC/Ameritech will perform an analysis of all other pre-ordering transactions, including but not limited to, address validation, telephone number availability and customer service information and will develop a proposed uniform specification for these transactions. The actual final data field-level specifications will be developed with CLEC input per the timeline established by the Change Management Process. SBC/Ameritech's different backend system constraints will have no impact on the CLECs' utilization of the Customer Service Information Inquiry.

Address Validation Inquiry

The Address Validation Inquiry will continue to be available in all SBC/Ameritech service areas. As part of the uniform application to application and GUI interfaces, it will provide access to validated address information by address or working telephone number. This working telephone number inquiry will be available for residential service only. Address information will also continue to be available as a Data Validation File in the SWBT, PB/NB and Ameritech service areas, and will be made available as a Data Validation File in the SNET service area with the implementation of the uniform application to application and GUI interfaces in that service area.

Common Language Location Indicator (CLLI) Inquiry

The Common Language Location Indicator (CLLI) Inquiry will provide the CLLI code associated with a telephone number, and is used to determine the appropriate CLLI to be submitted on a local service request for port or loop with port service. Because this functionality on an application to application basis is currently available in the SWBT and PB/NB service areas only via the proprietary Datagate interface, this inquiry will be made available in the current EDI/CORBA interfaces in the SWBT and PB/NB service areas in advance of implementation of the uniform application to application interfaces. This enhancement will enable CLECs currently using Datagate to gain the additional benefits of EDI/CORBA (e.g., address parsing) but without loss of access to this inquiry. This inquiry will be available in all service areas in the uniform application to application and GUI interfaces. This will be the first implementation of this inquiry in the Ameritech and SNET service areas. The CLLI Inquiry will be a separate one so that users can simply enter a Telephone Number or a circuit ID and obtain the CLLI associated with the serving office and equipment. CLLI will also be added to the CSR so that a separate query is not always necessary.

Connecting Facility Assignment (CFA) Inquiry

Based on the input facility number, this inquiry may be used to verify the status of a connecting facility prior to submitting this information on a local service request. This inquiry will be available in all SBC/Ameritech service areas via both the uniform application to application and GUI interfaces. This inquiry will be introduced in the Ameritech service area as part of the functionality addition to the existing Ameritech EDI interface in April 2000. It will be introduced in the SNET service area with the implementation of the uniform application to application and GUI interfaces in that service area. The CFA Inquiry will be a separate one and will be provided on the CSR outputs. This Inquiry will be redesigned to provide the status on all circuits associated with a particular tie cable, so as to be more useful to CLECs.

Customer Service Information Inquiry

The Customer Service Information Inquiry will continue to be available in all SBC/Ameritech service areas via both the uniform application to application and GUI interfaces. It will provide the CLEC the ability to retrieve Customer Service Information (CSI) records for accounts belonging to the requesting CLEC or to SBC/Ameritech retail units, but not when accounts are owned by another CLEC. CSI records may be retrieved using account telephone numbers or individual working telephone numbers. A uniform size limit will be established on CSI responses. The CSI response will be in a parsed format consistent between service areas SBC/Ameritech's different backend system constraints will have no impact on the CLECs' utilization of the Customer Service Information Inquiry. For example, the data content will be consistent in each service area. The only exception to this uniformity shall occur when different field identifiers and SOSCs must be used to reflect differences in SBC/Ameritech's tariffed service features. However, once a field identifier is established in one area for a particular service feature, that same field identifier will be used in the rest of SBC/Ameritech's service areas as that feature is made available.

Data Validation Files

Data Validation Files will continue to be available in all SBC/Ameritech service areas. The directory names, class of service codes, USOC, community names, yellow page headings, feature/service availability, and PIC/LPIC code files will be available via Connect:Direct, CD-ROM or downloadable using the pre-ordering GUI. Due to its size, the street address guide will be available only via Connect:Direct and CD-ROM. SBC/Ameritech's different backend system constraints will have no impact on the CLECs' utilization of the Data Validation Inquiry. For example, the Data Validation Files will be uniform in format and content. The only exception to this uniformity shall occur when different field identifiers and SOSCs must be used to reflect differences in SBC/Ameritech's tariffed service features. However, once a field identifier is established in one area for a particular service feature, that same field identifier will be used in the rest of SBC/Ameritech's service areas as that feature is made available.

Digital Subscriber Loop Pre-qualification Inquiry

The Digital Subscriber Loop Pre-qualification Inquiry will continue to be available in the SWBT and PB/NB service areas via the uniform application to application and GUI interfaces. This inquiry will be made available in the Ameritech and SNET service areas with the introduction of the uniform application to application and GUI interfaces in those service areas.

Digital Subscriber Loop Qualification Inquiry

This inquiry will provide CLECs with access to a mechanized loop qualification capability that can be used to qualify unbundled loops on a pre-order basis. This mechanized loop qualification will provide the CLECs with the information needed to make an informed business decision regarding its ability to provide DSL-based service to the end user. This inquiry will be available in all SBC/Ameritech service areas via the uniform application to application and GUI interfaces. It will be introduced in the SWBT and PB/NB service areas via the DataGate and Verigate interfaces in March 2000, and via the EDI/CORBA application to application interface in April 2000. In the Ameritech service area, this inquiry will be introduced via the EDI application to application interface in April 2000, and via TCNet in June 2000. The Loop Qualification Inquiry will be introduced in the SNET service area via the EDI application to application interface in July 2000.

The pre-ordering interfaces offered by SBC/Ameritech will be enhanced during 2000 specifically with respect to the Digital Subscriber Loop Qualification Inquiry. These enhancements come in response to the FCC's UNE Remand Order (Third Report and Order in Docket 96-98), CLEC requests, and in response to specific requirements in the FCC's SBC/Ameritech Merger Conditions on providing loop makeup information for unbundled DSL-capable loops. SBC/Ameritech continues to discuss and provide information on these enhancements through the Change Management Process. The data returned from the mechanized loop qualification transaction will be based on actual data rather than designed data. To the extent it is designed data, as the actual data is gathered to fulfill manual loop qualification requests, SBC/Ameritech will update its databases with the actual data within 24 hours.

Directory Listing Inquiry

The Directory Listing Inquiry will be available in all SBC/Ameritech service areas via the uniform application to application and GUI interfaces. This will be the introduction of this inquiry in the SWBT, PB/NB, and Ameritech service areas. The Directory Listing Inquiry will provide for the retrieval of listing information by either account telephone number or individual working telephone number. CLECs will be able to retrieve directory listing information for accounts belonging to the requesting CLEC or to SBC/Ameritech retail units, as well as for those owned by another CLEC. A uniform transaction size limit will be implemented and the format of the information will be consistent between service areas. The data content of the response transaction will differ between operating service areas based on the availability of information in the source backend systems. This information will also continue to be available in all SBC/Ameritech service areas using the Customer Service Information Inquiry.

Dispatch Inquiry

The Dispatch Inquiry will be available in all SBC/Ameritech service areas via the uniform application to application and GUI interfaces. This inquiry indicates when the dispatch of an SBC/Ameritech technician is required for residential service ordered on a local service request. Dispatch is based on the existence of cut-through facilities and assists the CLEC in determining the due date that may be quoted to the end user. Although similar functionality is available currently in all service areas, this standalone inquiry will be first introduced in the Ameritech and SNET service areas with deployment of the uniform application to application and GUI interfaces.

Due Date Inquiry

The Due Date Inquiry will continue to be available in all SBC/Ameritech service areas, and will be available via both the uniform application to application and GUI interfaces. This inquiry allows for

the identification of available premise visit dates for services to be ordered on a local service request. If alternate dates are requested, the next available and twenty-nine alternative dates will be returned.

Feature/Service Availability Inquiry

The Feature/Service Availability Inquiry, which provides information regarding the availability of specific features and services at a particular local serving office switch, will be available in all SBC/Ameritech service areas via the uniform application to application and GUI interfaces. Available features will be identified using USOCs, which vary between service areas due to product and tariff differences. This inquiry will be first introduced in the Ameritech service area as part of the functionality addition to the current EDI interface in April 2000. This same Feature/Service Availability information will also continue to be available in all service areas as a Data Validation file.

Network Channel/Network Channel Interface (NC/NCI) Inquiry

The Network Channel (NC) and Network Channel Interface (NCI) Codes Inquiry will be available in all SBC/Ameritech service areas via the uniform application to application and GUI interfaces. This inquiry provides for the validation of Network Channel (NC) and Network Channel Interface (NCI) codes and their combinations prior to submitting a local service request. Because this functionality on an application to application basis is currently available in the SWBT and PB/NB service areas only via the proprietary Datagate interface, this Inquiry will be made available in the current EDI/CORBA interfaces in the SWBT and PB/NB service areas in advance of implementation of the uniform application to application interfaces. This enhancement will enable CLECs currently using Datagate to gain the additional benefits of EDI/CORBA (e.g. address parsing) but without loss of access to this inquiry. This inquiry will be first introduced in the Ameritech service area as part of the functionality addition to the current EDI interface in April 2000, and first available in the SNET service area with the implementation of the uniform application to application and GUI interfaces in that service area. The NC/NCI Inquiry will be redesigned so that users can obtain the NC/NCI assigned to a specific loop by SBC/Ameritech. This will enable CLECs to ensure that current loop conditioning is compatible with a loop migration order.

Pending Order Status Inquiry

The Pending Order Status Inquiry will be available in all SBC/Ameritech service areas via the uniform application to application and GUI interfaces. A list of pending service order information will be provided by working telephone number and detailed service order information will be available using multiple search criteria. This inquiry will be first introduced in the Ameritech and SNET service areas with the implementation of the uniform application to application and GUI interfaces in those service areas.

PIC/LPIC Inquiry

The PIC/LPIC Inquiry provides a list of current Primary Interexchange Carrier (PIC) and IntraLATA Primary Interexchange Carrier (LPIC) codes for carriers providing service at a particular local serving office switch. This inquiry will be available in all SBC/Ameritech service areas via the uniform application to application and GUI interfaces. PIC/LPIC Inquiry will be first introduced in the SNET service area with the implementation of the uniform application to application and GUI interfaces in that service area. This same information will continue to be available in all service areas as a Data Validation file. This Inquiry will be available to CLECs as part of the Customer Service Information

Inquiry and as a stand-alone query to provide a list of available PIC/LPIC choices for the serving offices.

Telephone Number Availability

The Telephone Number Availability function will be available in all SBC/Ameritech service areas via the uniform application to application and GUI interfaces. The Telephone Number Availability functions supported in the uniform application to application and GUI interfaces will be inquiry, reservation, confirmation, and cancellation. The maximum number of available telephone numbers returned in response to an inquiry will be ten, the quantity of telephone numbers that can be reserved in a single transaction will be one, and the telephone number reservation period will be standardized at thirty calendar days.

The following table summarizes the pre-ordering functions to be available in all SBC/Ameritech service areas via the uniform application to application and GUI interfaces:

Inquiry	Uniform Application to Application and GUI Interface
Address Validation	Numbered, Unnumbered, Unnamed, Descriptive inquiry
	WTN inquiry
Common Language Location Identifier (CLLI)	CLLI inquiry
Connecting Facility Assignment (CFA)	CFA inquiry
Customer Service Information (CSI)	ATN inquiry
	WTN inquiry
Data Validation Files	SAG, PIC/LPIC, Features/Services, Yellow Page Headings, USOCs
	Direct:Connect, CD-ROM, Download via GUI
DSL Pre-qualification Inquiry	Pre-qualification inquiry
DSL Loop Qualification	Loop Qualification inquiry
Directory Listing Inquiry	ATN inquiry
	WTN inquiry
Dispatch	Dispatch inquiry
Due Date Inquiry	Inquiry Next available due date and 29 alternate dates available
Feature/Service Availability	List of Features/Services by USOC
NC/NCI Validation	Validation inquiry
Pending Order Status	Pending inquiry
PIC/LPIC List	Code inquiry Data Validation File
TN Availability	Inquiry 10 TNs

Inquiry	Uniform Application to Application and GUI Interface
	Reservation 1 TN
	Confirmation
	Cancellation

C. Ordering

All SBC/Ameritech service areas will implement a single uniform application to application ordering interface.. This interface will adopt all of the EDI industry guidelines. OBF LSOG 4. TCIF ELMS 4 and the associated ASC X12 version 4020. The uniform ordering application to application interface will be referred to as the "application to application interface" in the remainder of this ordering section of this plan.

As described in Section B above. all SBC/Ameritech service areas will implement a uniform. integrated Pre-ordering/Ordering GUI to access pre-ordering and ordering functions. The presentation of the GUI. which will be an enhanced. integrated version of the existing Verigate and LEX applications offered in the SWBT and PB/NB service areas. will make use of the terminology employed in OBF LSOG 4. and have functionality similar to that offered via the uniform application to application interface. Attached to this document is the User Guide for the existing LEX application (see Attachment D). The uniform pre-ordering/ordering GUI will be referred to as the "GUI" in the remainder of this ordering section of this plan.

The uniform versions of the application to application and GUI interfaces will be deployed in multiple phases. The uniform pre-ordering/ordering GUI interface will be first implemented in March 2001 in the Ameritech and SNET service areas. The uniform application to application interface will be first implemented in June 2001 in the SWBT and PB/NB service areas. The uniform GUI interface will be implemented in those service areas at the same time. The uniform application to application interface will be implemented in the Ameritech service area in September 2001. The uniform application to application interface will be implemented in the SNET service area in March of 2002.

Uniform Ordering Message Flow

997 Transaction

All service areas currently return a 997 transaction to the CLEC to acknowledge the receipt of data transmission and expect a 997 transaction in response to transactions set to the CLEC. This practice will be continued in the uniform application to application interface. SBC/Ameritech will return both positive and negative 997 transactions in all of its service areas.

850/855 Transactions

In the uniform environment. an 850 transaction will be sent until a positive 855 transaction is received regardless of the types of errors that may be detected. An 855 transaction will only be used to return a response to the 850 in the format of an FOC or error notification. If an error notification is sent. SBC/Ameritech will scan the entire order and notify the CLEC in one 855 transaction of all the errors found and the definitive reject reasons by field. SBC/Ameritech will no longer send 855 advice transactions. even for orders of 50 lines or more.

860/865 Transactions

In the uniform environment. all 860 transactions will be utilized to effect a change using the full refresh process or to respond to a negative 865 transaction to correct errors on an 860. The full refresh process will eliminate the need for CLECs to use the SLA field and the AI. DI. RE and NC

qualifiers currently required by Ameritech. The 865 will be used for returning confirmation notices (FOCs and SOCs), error notices on 860 transactions, and jeopardy notification notices.

Uniform Product Ordering

Fields that identify who the customer is, how the request is tracked, and what services and activities are being requested, will be made uniform, e.g. use of SOSCs to order features rather than USOC codes, uniform use of NC, NCI, SECNCI combinations, and use of uniform activity types.

The uniform application to application and GUI interfaces will be adapted to accommodate any product submitted electronically. This includes Resale, Loop, Number Portability, Loop with Number Portability, Port, Loop with Port combination as well as varieties of these products. Product availability will not change due to implementation of the uniform interfaces, i.e. some products below may not be offered in all service areas.

When OBF guidelines exist, and where the product is offered, the ordering process for the product will follow the OBF guideline, taking into consideration service area-specific provisioning needs. If no OBF guideline is available, and the product is offered in multiple service areas, a uniform SBC/Ameritech guideline will be developed as part of the CMP which will encompass regional provisioning needs. If no OBF guideline is available and the product is offered in only one service area, existing regional guidelines will remain in place.

Ordering of all product varieties listed in the table below will be supported by the uniform application to application and GUI interfaces. The table also indicates which service areas offer each product, and whether an OBF guideline for ordering of that product currently exists.

PRODUCT VARIETIES	OBF STANDARD	SWBT	PB/NB	Ameritech	SNET
RESALE					
• Resale Basic Exchange	X	X	X	X	X
• Resale Centrex	X	X	X	X	X
• Resale Private Line	X	X	X	X	X
• Resale ISDN PRI		X	X	X	X
• Resale ISDN BRI		X	X	X	X
• Resale Advance Digital Trunking Services (DS1 Trunk)		X	X	X	X
• Resale Base Rate Service (56kb)				X	X
• Resale DS1, DS3 (Line Side)		X	X	X	X
• Resale DID	X	X	X	X	X
• Resale PBX	X	X	X	X	X
• Resale Foreign Exchange			X	X	X
• Resale Off Premise Extension		X	X	X	X
• Resale Coin		X	X	X	X
PORT					
• Basic Port	X	X	X	X	X
• Centrex Line Port		X	X	X	
• Analog Trunk Port		X	X	X	X
• DID Trunk Port		X	X	X	X
• BRI Line Port		X	X	X	X
• PRI Trunk Port		X	X	X	
• DS1 Trunk Port		X	X	X	
• DS1 Network Port		X		X	
LOOP with Basic PORT Combo	X	X	X	X	X
LOOP					

PRODUCT VARIETIES	OBF STANDARD	SWBT	PB/NB	Ameritech	SNET
• Basic Loop	X	X	X	X	X
• Includes ISDN, xDSL, PBX, T1 and T3	X	X	X	X	X
ENHANCED EXTENDED LOOP (EELs)		X	X	X	
UNBUNDLED DEDICATED TRANSPORT	X	X	X	X	
LOCAL INTERCONNECTION TRUNKS	X	X	X	X	X
NUMBER PORTABILITY					
• Stand-alone	X	X	X	X	X
• With Loop	X	X	X	X	X
MISC					
• Listings	X	X	X	X	X

[The table should breakdown the listing availability based on region and product type and should specify if it is all-inclusive. Complex listings should also be specified.]

Processes for the Listing and E-911 services associated with ordering products listed above have been analyzed in concert with the product offerings. Service area-specific differences do exist on the basis of tariff product offerings and contract arrangements with publishing companies as described in the PMO section of this document. The process by which CLECs will order Directory Listing and E-911 services will be determined as part of the CLEC User Forum.

The data field-level specifications for the uniform ordering interfaces will be developed with CLEC input per the timeline established by the Change Management Process. These specifications will be developed in a manner similar to those for pre-ordering as shown in the sample specifications (Attachment C).

The existing ordering application to application interface offered by SBC/Ameritech and SNET and , the LEX GUI application available in the SWBT and PB/NB service areas will be enhanced during 2000 specifically with respect to the ordering of unbundled DSL-capable loops. These enhancements come in response to the FCC's Line Sharing Order (Third Report and Order in Docket 98-147 and Fourth Report and Order in Docket 96-98), CLEC requests, and in response to requirements in the FCC's SBC/Ameritech Merger Conditions on the ordering of unbundled DSL-capable loops. SBC/Ameritech continues to discuss and provide information on these enhancements through the Change Management Process. These enhancements will continue to allow CLECs to choose either Account Service Requests or Local Service Requests to order DSL/Trunks.

D. Provisioning

As described in the PMO, based on the nature of the function, some provisioning functions are made available via the pre-ordering interfaces while others are made available via the ordering interfaces. Therefore, the uniform version of these provisioning functions will be available in each service area in accordance with the schedules for the implementation of the uniform versions of the pre-ordering and ordering interfaces.

Jeopardy Notification

Jeopardy Notification is used when alerting the CLEC that a situation has been encountered in the provisioning of an order that will potentially cause the confirmed due date to be missed. Jeopardy notification will continue to be provided in all SBC/Ameritech service areas. It will be available via the uniform ordering application to application interface using the 865 transaction, and will be a function of the uniform ordering GUI interface.

Service Order Completion

Service Order Completion, which is a notification to the CLEC that the work requested on a previously provided purchase order (or request) has been completed, will continue to be provided by all SBC/Ameritech service areas via the uniform ordering application to application interface using the 865 transaction, and will be a function of the uniform ordering GUI interface. A Service Order Completion will also apply to orders for directory listings. SBC/Ameritech will implement the fielded order completion standard as established by ATIS.

Loss Notification

All SBC/Ameritech service areas will continue to provide Loss Notification. This notification alerts the CLEC that a change requested by another Telecommunications Carrier (TC) has been completed and, as a result, the Local Service Provider associated with a given telephone number has been changed. It will be provided via the uniform ordering application to application interface using the 836 transaction, and will be available via the uniform ordering GUI interface. The current loss notification processes via industry standard CARE record format will remain in effect until full implementation and testing of the proposed Loss Notification process is completed. The Loss Notification process will be developed through the CMP.

Pending Order Status

Pending Order Status will be available in all SBC/Ameritech service areas via the uniform pre-ordering application to application and GUI interfaces. This will be the introduction of this function in the Ameritech and SNET service areas.

Posted Order Status

Posted Order Status will be made available in all SBC/Ameritech service areas via the uniform pre-ordering application to application and GUI interfaces.

Provisioning Order Status

Provisioning Order Status will be available in all SBC/Ameritech service areas via the uniform pre-ordering application to application and GUI interfaces. This will be the introduction of this function in the Ameritech and SNET service areas. The input and output fields for this function will be made uniform.

E. Maintenance and Repair

SBC/Ameritech will continue to offer an application to application interface in all service areas. This uniform application to application interface will be similar to the current EBTA interface offered in the SWBT, PB/NB, and Ameritech service areas, and be based on ANSI standards T1.227:1995, T1.227a:1998, and T1.228:1995 developed by the T1M1 committee. This application to application interface will support the set of data attributes defined by the standards in a manner consistent with those standards. This list of supported attributes is contained in a table later in this Maintenance and Repair section of this document.

SBC/Ameritech will also continue to offer a GUI interface for maintenance and repair in all service areas. The uniform GUI application offered by SBC/Ameritech will be similar in functionality and presentation to the EBTA GUI available in the Ameritech service area. The GUI will provide a uniform presentation to end users in all service areas, and have functionality equivalent to that of the uniform EBTA application-to-application interface. Attached to this document is the User Guide for the existing EBTA GUI application (see Attachment E). The uniform GUI application to application interfaces will be determined as part of the CMP process.

As a first phase toward the uniform application to application and GUI interfaces, SBC/Ameritech will enhance its current application to application interface and GUI in the Ameritech service area in second quarter of 2000. The following business functionality will be added:

- MLT Testing functionality for application to application and GUI

  This will enable CLECs to test resold POTS and loop with port. UNE-P mechanized testing will also be provided. This will allow a faster determination of the trouble source without Ameritech manual intervention. This ability will allow a CLEC to test the loop while the customer reporting the trouble is still on the call.

  The application to application interface will be compliant with the ANSI T1.262 industry standard. The EBTA GUI will provide equivalent functionality.

- GUI edits to conform to TRFD3 (ECIC Trouble Report Format Definition)

  This enhancement will reduce the amount of information necessary to report trouble on a POTS or loop with port line by using enhanced industry guidelines. This will simplify and streamline the process for reporting troubles through the GUI, and will give the GUI functionality equivalent to that of the application to application interface. The GUI will also support repair activities on UNE-P.

- GUI Activity Duration window to show billable hours

  The Activity Duration window will provide the CLEC with information on what type of repair activity occurred (e.g., dispatch, after hours repair) while clearing a special services trouble. This will supply details on the duration of each activity and whether or not it was billable, and will give the GUI functionality equivalent to that of the application to application interface.