Document Title:	CUSTOMER SERVICES INVENTORY BUSINESS PROCESS		
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Subject:	**HIGH LEVEL BUSINESS PROCESS FOR CUSTOMER SERVICE INVENTORY INTERFACES**		
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Revision History

Issue No.	Date	Affected Pages	Authors	Reason for Changes
1.0	12 October 2001	All	Sadie Brown	Initial draft document describing the interfaces to the CSI system.
1.1	19 October 2001	5	Sadie Brown	Per feedback from Stephane Vallee: Corrected the job titles for Rene LeMeur, Stephane Vallee, and Jean-Luc Coat.
1.1	19 October 2001	7, 13	Sadie Brown	Per feedback from Stephane Vallee: Modified the CSI Interfaces drawing to reflect that BCD only feeds the SIRIUS billing system.
1.1	19 October 2001	16	Sadie Brown	Per feedback from Stephane Vallee: Referenced the business rules in this section, and explained why the system/implementation rules were included also.
1.1	19 October 2001	21	Sadie Brown	Per feedback from Stephane Vallee: Added #5--the general remark about Data Quality and Testing.
1.2	07 November 2001	4	Sadie Brown	Per Feedback from Steve Shankman: Added explanation on the terminology used in GOLD and CSI regarding the difference services.
1.2	07 November 2001	8	Sadie Brown	Per Feedback from Steve Shankman: Modified the language in the Section 2.3, 1st Bullet, to reflect that CSI will provide the data to BCD which will feed the billing system.
1.2	07 November 2001	22	Sadie Brown	Per Feedback from Steve Shankman: Added #6,7,8--questions about GOLD's use of the CSI USEID.
1.2	07 November 2001	24	Sadie Brown	Per Feedback from Steve Shankman: Corrected the titles for GOLD post-implementation support personnel.
1.2	07 November 2001	12	Sadie Brown	Per Feedback from Steve Shankman: Changed NSR to Provisioning.

Table of Contents

1.0 Introduction

This document is the [draft] high level Customer Services Inventory (CSI) Interfaces document. It is prepared by the Business Analysis and Modeling organization and describes the CSI Interfaces to the other Equant systems.

1.1 Purpose

The purpose of this document is to describe the systems that CSI interfaces with to satisfy the business requirements which are listed below:

- Store all billable service components for a customer, both network and non-network service components.
- Store versions of services, showing active, planned, and historical services.
- Enable orders to be placed against services., i.e., new, change, disconnect.
  NOTE: GOLD uses the terminology new, change, and disconnect for the services. The CSI CONOPS uses provide, modify, and cease to refer to these services. This document will use the new, change and disconnect terminology.
- Allow billing to extract services to be billed and their prices as defined when the order was placed.
- Allow non-discoverable services to be defined and maintained.
- Store those attributes for a service that define the logical service, its billable components and their high level attributes, prices for fixed and one-off charges.

1.2 Scope

The scope of this document is to identify the systems that send input data to CSI, the systems that receive output data from CSI, and the systems that view the data in CSI.

1.3 Reference Documents

CSI CONOPS, Version 2.5, 7 September 2001
CSI-Business-UseCases, Model V141, 13 September 2001
BCD Use Cases, Version 1, 23 July 2001.
Service Level Agreement, CSI - Billing. 13 September 2001 (Draft)

1.4 Contributors

The following people provided input to this document:

Name	Organization/Position
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2.0 Customer Service Inventory

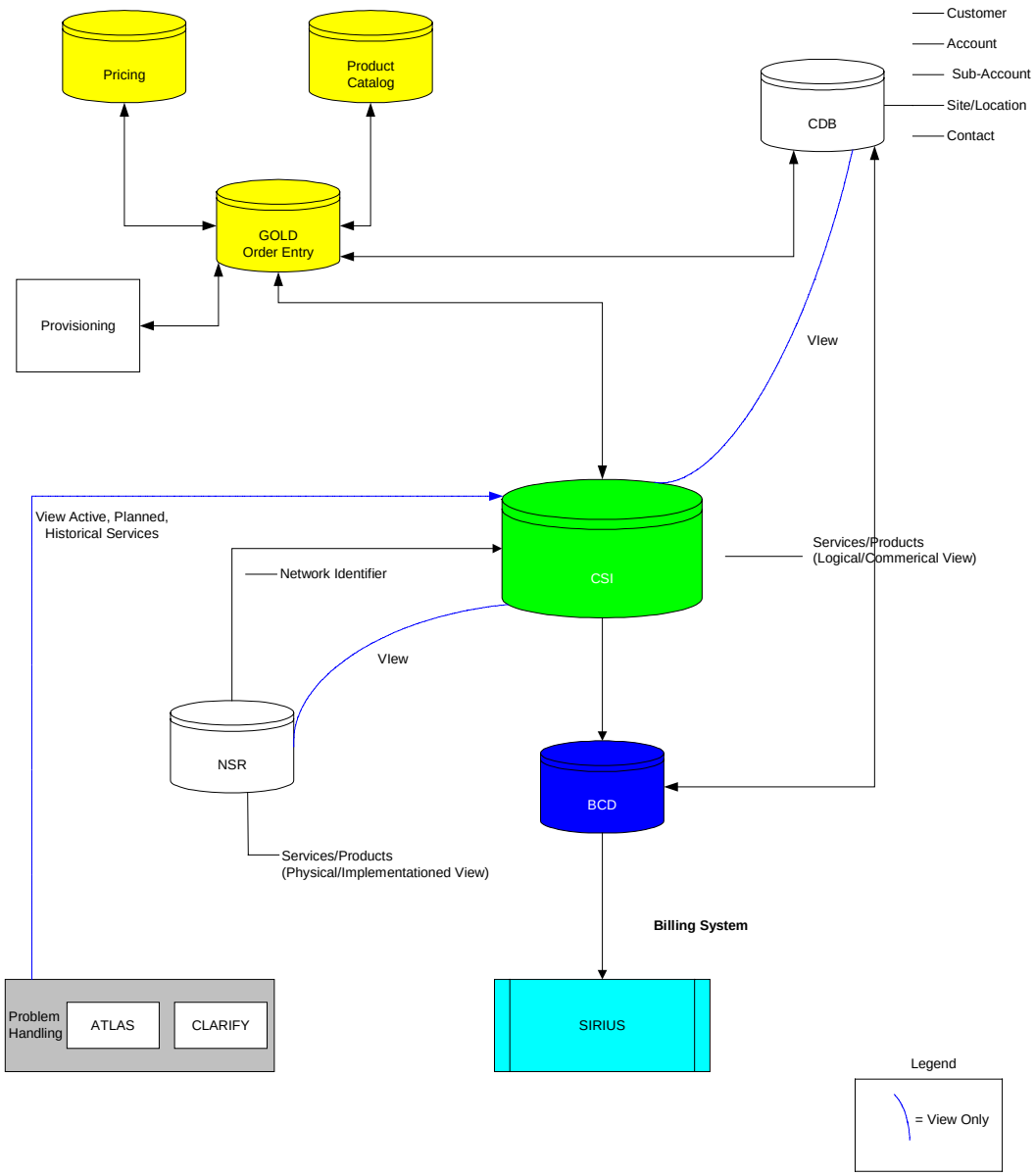
The Customer Service Inventory (CSI) System is a repository of the services that are provided to a customer. A service element is a component part of the service that has been sold to a customer. Service elements are created in CSI when the order creating the service is ready (or cleared) for provisioning. The order will flow from order entry to CSI and Provisioning simultaneously. CSI will contain an inventory of the service elements that the customer ordered and will be billed against. The repository will retain the history of all changes to the service elements.

The target for CSI is to interface with the various corporate data repositories for services that the customer has ordered and will be billed against. All customer facing entities and systems, such as order management and billing will query CSI for commercial data.

CSI is proposed to be the core system, and interfaces will be established between CSI and the systems listed below:

- Order Entry/Order Management (GOLD OE).
- Billing Customer Data (BCD).
- Network Service Repository (NSR)
- Customer Database (CDB)
- CLARIFY

2.1 Customer Service Inventory Interfaces



2.2 Customer Service Inventory Functionality

The proposed functionality for the Customer Service Inventory includes the following:

- CSI will consolidate both network discoverable service components and other service components that are linked to customers, sites, billing profiles, and prices.
- CSI will maintain a history of the commercially relevant changes to services (new, change or disconnect).
- CSI will hold services in progress for visibility to other teams before implementation.
- The services [in CSI] will be managed by placing abstract identifiers on components at order time.
- Provisioning and Network Operations will associate physical identifiers (such as network ids) separately and independently. This allows separation of the logical services provided and the physical implementation which can change from time to time but have no effect on the commercial view of the service.
- CSI will link to the NSR for data where required and will not replicate data in NSR if avoidable.
- CSI will be an integration point for many processes and provide visibility of a customer's services to a range of audiences.
- CSI will provide the billing system with all commercial service information, including pricing for fixed charges (one-off/non-recurring and recurring charges).

2.3 Customer Service Inventory Benefits

CSI, as a core system, will benefit the company in the following manner:

- Allow the billing systems to extract billable versions of service elements and their prices (via BCD).
- Provide global visibility of an integrated view of all services with their commercial and physical details.
- Allow Bid/Order Entry/Order Management processes to place orders against correctly identified service elements.
- Allow physical changes to the network without changing the commercial service.
- Ensure that the physical (as implemented) and the logical (as ordered, priced, and billed) views of the same service element match.
- Provide reporting information about active services to sales, marketing, product, etc.

3.0 GOLD Order Entry Interface To CSI

The Global Order Lifecycle Delivery (GOLD) system will be used to manage the ordering of the customer's services. The customer's requests for new, change, or disconnect services will be input into GOLD. The service elements that GOLD will send to CSI will vary based on the type of service the customer requests, new, change, or disconnect. When the order is ready for provisioning, GOLD will send the order to Provisioning and also send the information for the commercial service to CSI for permanent storage.

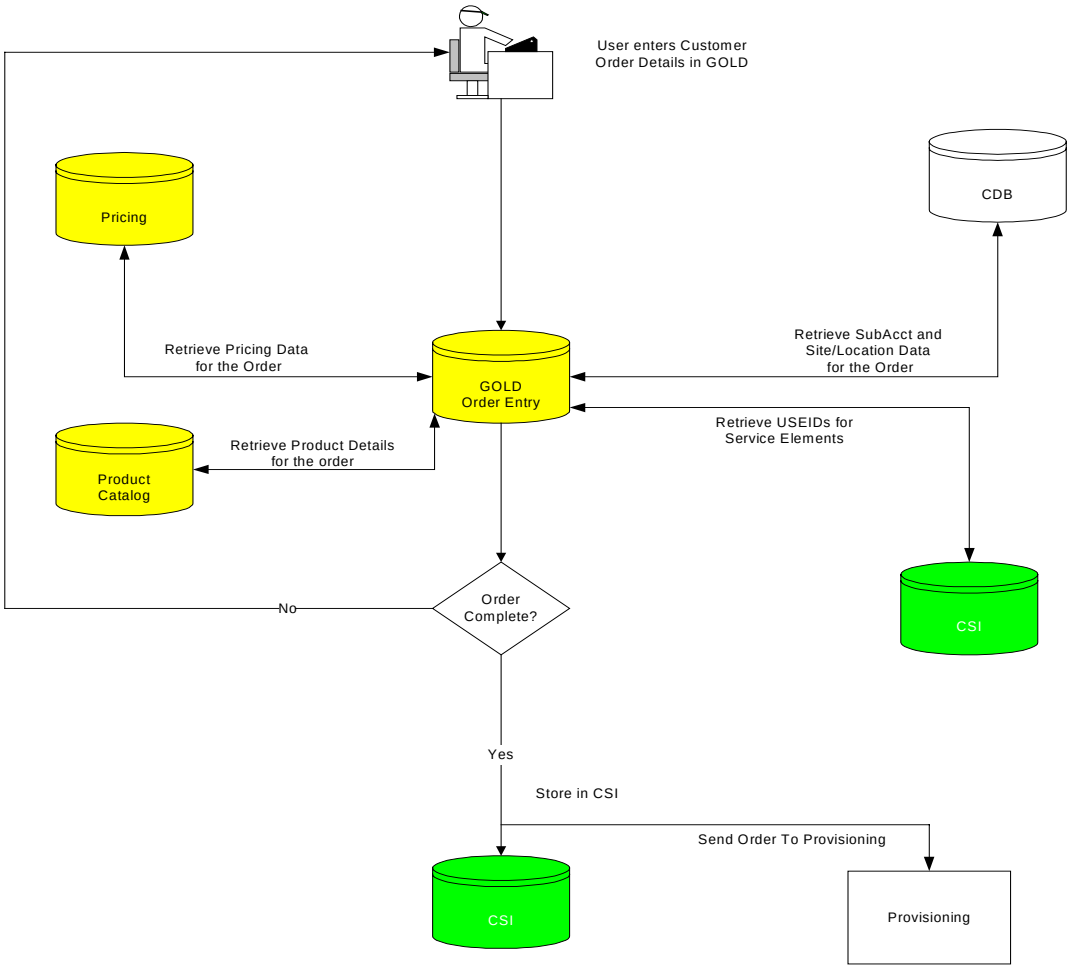


Figure 1. GOLD - CSI Interface

3.1 Business Requirement For The GOLD - CSI Interface

The business requirement is to enable orders to be placed against the customer's services that are stored in CSI. CSI will store versions of the services, showing active, planned, and historical services, and GOLD will place orders against these services, i.e., new, change, and disconnect.

3.2 Storing GOLD New Orders In CSI

For new orders, GOLD will send CSI an order profile, where each service element is identified by a unique service element identifier (Useid). CSI will store the order profile. The order profile includes the following information for each service element:

- Contract number under which this service element was created.
- Order number that created the tree of service elements. (A service is defined as a view of a tree composed of service elements. It is the top level service element of a tree. Example: Frame Relay.
- Unique service element identified (USEID)
- Version type. The version or order types are new, change, and disconnect.
- Parent USEID. (There will be none for the top node.)
- Effective date - this is the date the service element becomes active.
- Grandfather date - this date comes from the contract.
- Price book version.
- If the service element is a billable component that has usage, GOLD must send monthly charges and usage, and there may be one-off charges as well. If the service element is a billable component that has a recurring charge, GOLD must send monthly charges and may send one-off charges. There may be multiple monthly charges. For example, a router has maintenance and rental charges.
    - One-Off (non-recurring) Charges will be sent to CSI with the new information on rating, currency, amount, and indicator for discount treatment (net of discount or gross of discount or non-discountable.
    - Monthly Charges will be sent to CSI with the new information on rating, currency, amount, and indicator for discount treatment (net of discount or gross of discount or non-discountable.
    - Usage Charges will be sent to CSI with new information on rating, currency, and contract reference.
- Attributes for parameters that affect billing (such as new information on circuit - CIR).
- Sub-billing account reference number under which the service element should be billed.
- Site/service location reference of where the service is installed.

3.3 Storing GOLD Change Orders In CSI

For change orders, GOLD will query CSI to retrieve the customer's current configuration which includes the unique service element identifiers (USEID). For service elements that require changes, the changes will be made in GOLD, and only those changed attributes will be sent back to CSI, i.e., if a port speed has been upgraded, no information on the CIR will be sent.
CSI stores a new version for the order profile. The order profile includes the following information for each service element:

- Unique service element identifier (USEID)
- Version type.
- Parent USEID. (There will be none for the top node.)
- Effective date - this is the date the service element becomes active.
- If the service element is a billable component that has one-off/non-recurring charges (which include new information on rating, currency, gross amount, discount amount, start date), then GOLD must send the the one-off charges AND one of the following:
  - Monthly Charges with the new information on rating, currency, gross amount, discount amount, start date, end date.
  - Usage-based Charges with new information on rating, currency, contract reference, start date, end date.
- Attributes for parameters that affect billing (such as new information on circuit - CIR).
- Sub-billing account reference number under which the service element should be billed.
- Site/service location reference of where the service is installed.
- Network ID reference. This was not given at creation time, but was given by NSR upon provisioning of the service element.
- Contract number under which this service element was created.
- Order number that created the tree of service elements

3.4 Storing GOLD Disconnect Orders In CSI

For disconnect orders, GOLD will request the commercial service attributes from CSI in order to process the order. GOLD will send CSI the unique service element identifier (USEID) of the service elements that are to be disconnected. The information that the order profile will include has not been determined, but the proposed fields are:

- Unique service element identifier (USEID)
- Effective date - this is the date the service element is to be disconnected.
- Sub-billing account reference number under which the service element should be billed.
- Site/service location reference of where the service is installed.

3.5 Storing GOLD Order Status Data in CSI

GOLD will send CSI an order profile that includes specific billing data to be stored in CSI. The order profile includes the following information for each service element:

- Billing Start Date - the billing start date is not set at order creation time. Rather, GOLD receives the notification via a "clear to bill" message from Provisioning.
- Billing End Date - CSI receives the Billing End Date notification each time a new version of the service is requested, or whenever the service is disconnected.
- Status - there are three statuses which have been identified for service elements:
  - Ready for Provisioning - at order creation time, the status of the service element is always "Ready for Provisioning".
  - Ready for Service - when the service has been implemented on the physical network, Provisioning updates GOLD with the status of "Ready for Service".
  - Ready for Bill - indicates that the service is implemented, customer has accepted the service, and billing should initiate billing.

Note: All service elements in an order must have a status of "Ready for Bill" prior to the order being closed.

3.6 Business Rules

GOLD - CSI Business Rules	
Rule 1	Edits and data validation for GOLD Order Entry data fields will be performed in the GOLD system, upstream from CSI.
Rule 2	GOLD will retrieve, from other systems, any order entry data that is needed to complete the order before passing the order data to CSI. For example, GOLD will retrieve the sub-billing account number and site data from the Customer Database (CDB) before sending the order to CSI.
Rule 3	CSI will not perform any data validation for data being sent to CSI from the GOLD Order Entry system, from data migrations, or any other upstream processes.
Rule 4	For changes to the customer's existing data, GOLD will retrieve the customer's configuration from CSI, make appropriate changes, and send the changed service elements back to CSI for storage.
Rule 5	CSI will be available twenty-fours hours per day, seven days per week to receive customer orders from GOLD. CSI's availability will ensure that order entry can be performed in GOLD at any time, from all parts of the world (regardless of the time zone).
Rule 6	CSI will not interface with the Provisioning System. The Provisioning System will send the appropriate 'order status' back to GOLD to update the order. GOLD will send the updated 'order status' to CSI for storage with the order.
Rule 7	After the service is implemented on the physical network, the Network Service Repository (NSR) will send GOLD the network identifiers that are associated with each service element. GOLD must pass the network identifiers to CSI for storage with the order.

4.0 CSI Interface To Billing Customer Data

The Customer Service Inventory (CSI) database sends the customer's commercial data, i.e. products and associated data, to the Billing Customer Database (BCD). The customer data, such as billing accounts and sub-billing accounts are sent to BCD from the Customer Database (CDB). BCD then links the customer data from CDB and the customer's commercial data from CSI to obtain the data needed to send to the billing systems.

BCD also contains versions of the different billing parameters which are used by the guiding, rating, and invoicing sub-systems to produce the customer invoices.

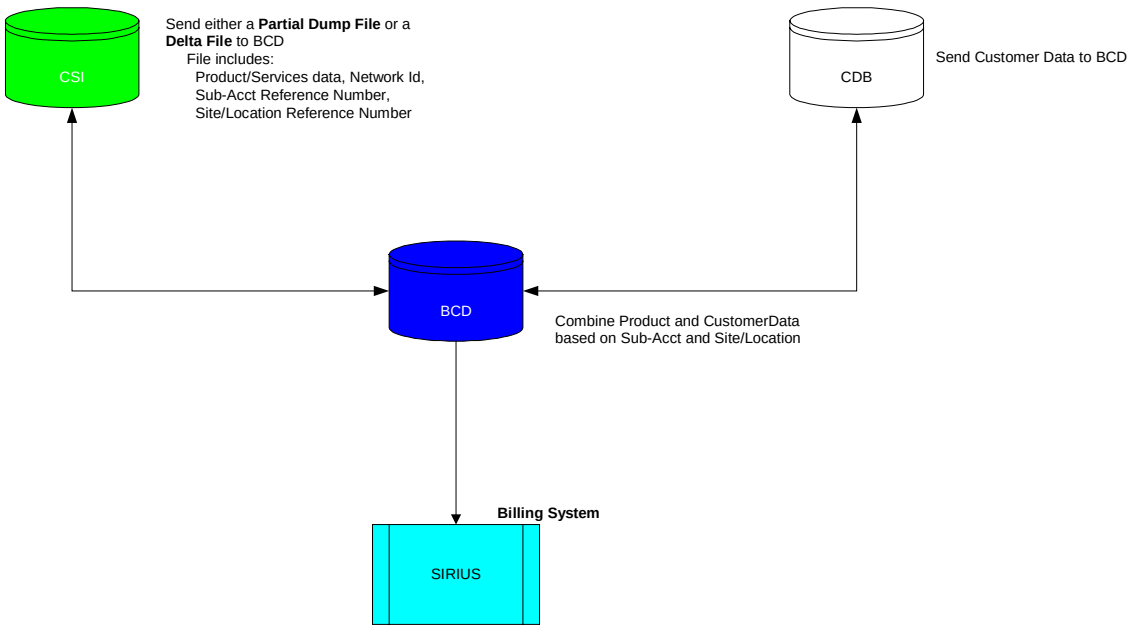


Figure 2. CSI - BCD Interface

4.1 Business Requirement For The CSI - BCD Interface

The business requirement is to have CSI provide the billable service components that the customer ordered, and enable billing to extract the services to be billed and their prices as defined when the order was placed. CSI will provide to the Billing Customer Database (BCD) the billable service components for a customer, both network and non-network service components. For each of the customer's services, CSI stores those attributes for the service that define the logical service, its primary billable components, their high-level attributes, and the prices for fixed and one-off charges. CSI provides this data by transmitting CSI files to BCD.

4.2 CSI Files

CSI will send two types of billable services files to BCD. One type is a partial dump file, and the other type is a delta file.

- Partial Dump - a file with all the product/service information within two dates. The partial dump contains a picture of services on the start date and a list of modifications that occurred between the two dates.
- Delta file - contains all the new information recorded in CSI since the date of the last file sent.

4.3 CSI File Format

Each file that CSI sends to BCD will have one Header Record, one Tail Record, and multiple Data (or Movement) Records. The data in the Movement Record are stored in ordered pairs (each pair consisting of a name and a value), and each pair is separated by semicolons ";". If the file is too large, it can be divided into multiple files. Each new file must contain one Header Record and one Tail Record. The Header Record field, "File Segment Number" specifies the sequence of the file in relation to the other files. The Tail Record field, "Last Segment Flag" denotes the last file in the sequence.

The records are described below, but reference should be made to the *Service Level Agreement CSI - Billing* for specific details.

4.3.1 Header Record

The first record in the CSI file is the Header Record. The fields (names) on the Header Record are:

- Record Type. The value for this record is always zero (0).
- File Recipient System is the system receiving the file from CSI.
- File Provider System is the system sending the file (CSI).
- Information Type indicates if the file is a Partial Dump or Delta File.
- File Sequence Number.
- Processed Entity Type Code describes the data being sent, i.e., product data.

- File Segment Number specifies the order of the file.
- Date Reported is the date the data was extracted.
- Reference Period is the period for which the service will be billed. When the file being sent is a Delta file, the period is set to nulls.

4.3.2 Tail Record

The last record in the CSI file is the Tail Record. The data is stored in ordered pairs and each pair is separated by semicolons ";". The fields on the Tail Record are:

- Record Type. The value for this record is always nine "9".
- Number of Data Lines in the File identifies the amount of data being sent.
- Last Segment Flag is used to denote if this is the last file in the series.

4.3.3 Data (Movement) Record

There are six types of data or movement records that can be sent to BCD. Three of the record types are creation records; creation of service elements, creation of sub-billing account attribution, and creation of major link attribution. The other three types of records are modification records; modification of service elements, modification of sub-billing accounts, and modification of major link attribution.

1. Creation of Service Elements - this data is needed to notify BCD of the creation of a service element. The fields on the record are:
   - Record Type. The value for this record is always one "1".
   - Event Type. For creation of service elements, the value is "C".
   - Movement Type. For service elements, the value is "E".
   - Entity Type - the value for the this field is "PRD", for Product.
   - Entity Identification - the service element USEID.
   - Start Billing Date.
   - Processing Date.
   - Service Data.

2. Modification of Service Elements - used to notify BCD of a modification to an existing service element. The fields on the Modification record are the same as the fields listed above for the Creation of Service Elements, with the exception of the "Event Type" field. On modification, the Event Type field will contain a value of "M".

3. Creation of Sub-Billing Account Attribution - this data is needed to create a link between a service element and a sub-billing account that is contained in CDB. The fields on the record are:
   - Record Type. The value for this record is always one "1".
   - Event Type. For creation of service elements, the value is "C".
   - Movement Type.
   - Entity Type.
   - Entity Identification.
   - Attribution Effective Date.
   - Processing Date.

- Attribution Entity Type.
- Attribution Entity Identification.
- Attribution Data.

4. Modification of Sub-Billing Account Attribution - used to notify BCD of a modification to the link between an existing service element and a sub-billing account. The fields on the Modification record are the same as the fields listed above for the Creation of Service Elements, with the exception of the "Event Type" field. On modification, the Event Type field will contain a value of "M".

5. Creation of Major Link Attribution - this data is needed to create a link between a service element and its 'parent' service element. The fields on the record are:
   - Record Type. The value for this record is always one "1".
   - Event Type. For creation of service elements, the value is "C".
   - Movement Type.
   - Entity Type.
   - Entity Identification.
   - Attribution Effective Date.
   - Processing Date.
   - Attribution Entity Type.
   - Attribution Entity Identification.
   - Attribution Data.

6. Modification of Major Link Attribution - used to notify BCD of a modification to the link between an existing service element and its 'parent' service element. The fields on the Modification record are the same as the fields listed above for the Creation of Service Elements, with the exception of the "Event Type" field. On modification, the Event Type field will contain a value of "M".

4.4 Business Rules

The business rules are included in Rules 1 through 5 below. Rules 6 through 16 are system or implementation rules that are included here only for clarification of some of the field values which are listed in Section 4.3 above.

CSI - BCD Business Rules	
Rule 1	CSI will send to BCD a weekly Partial Dump File.
Rule 2	CSI will accept "on demand" requests for the Partial Dump Files.
Rule 3	CSI will send BCD a Delta File every day except on the days in which a Partial Dump File is sent to BCD. The Delta File contains the changes that have occurred in CSI since the last Partial Dump File was sent.
Rule 4	CSI will be available twenty-fours hours per day, seven days per week to receive order entry data, and any modifications to the existing data.
Rule 5	If errors are found while the CSI data is being loaded into BCD, the 'errored' data will be stored in a specified database. When the next transmission is received from CSI, the 'errored' data will be recycled for corrections. BCD

	will not send any event data back to CSI.
Rule 6	There is only one Header Record in each file. The value for the Header "Record Type" is always "0".
Rule 7	There is only one Trailer Record in each file. The value for the Trailer "Record Type" is always "9".
Rule 8	There may be multiple Data (Movement) records in the file. The value for the Data "Record Type" is always "1".
Rule 9	All fields on the records should be delimited by a semicolon ";".
Rule 10	The attributes and their values should be sent as "name/value" pairs, separated by semicolons ";".
Rule 11	The valid values for the field, 'Event Type' are: "C" for create; "M" for modification
Rule 12	The valid value for the field "Entity Type" is "PRD".
Rule 13	The valid value for the 'File Recipient System' field is "BCD".
Rule 14	The valid value for the 'File Provider System' field is "CSI".
Rule 15	The valid values for the field 'Information Type' are "DCI", "DCS", or "DCL".
Rule 16	The valid values for the field 'Movement Type' are "E" or "A".

5.0 Network Service Repository Interface to CSI

The Customer Service Inventory (CSI) requires the network identifier, which is a physical identifier, of a service element to link the customer's logical and physical services. The network identifier is created in the Network Service Repository (NSR) when the order is provisioned, and is then passed back to CSI via the GOLD system. The network identifier will be stored in CSI, change history will be retained, and versioning will be required.

The network id:

- Has to be passed to the billing system to be used in presentment on the invoice. Generally, the service that the network id is associated with is displayed on the bill rather than the actual network id.
- Is used by the rating engine to guide traffic on the right invoice using the right service
- Can be used by the customer to identify services when requesting service changes or upgrades, and has to be displayed in the order management system as well as any system that browses through active services.

The details of the NSR to CSI Interface will be detailed later when the NSR system is chosen because the NSR features vary from vendor to vendor. Currrently, the choices of vendors has been narrowed to two, Granite Systems and Cramer Systems.

6.0 Customer Database Interface To CSI

The proposed interface/view between the Customer Database (CDB) and CSI that was described in the CSI CONOPS, Version 2.5 has been eliminated. The information contained in the Service Level Agreement CSI - BCD, Version 1 supercedes the CSI CONOPS.

7.0 CLARIFY Interface/View To CSI

Clarify enables users to open trouble tickets, track specific tasks needed to resolve problems across multiple workgroups, monitor service level agreements, and maintain permanent incident histories.

The target strategy is to allow Clarify to view active, planned, and historical customer services in CSI. The Clarify - CSI view is out of scope for this project.

8.0 Questions, Issues and Glossary

8.1 Questions and Issues

The following questions and issues were raised during the creation and review of this document. All issues that remain open after this document has been finalized will be forwarded to the CSI Project Manager to become part of the CSI Issue Log that is maintained on the CSI website.

Customer Service Inventory Interfaces, V1.0	
Number	Questions/Issues
1.	Should the Service Level Agreement (SLA) be a part of this document since the inclusion does not follow the ESPRIT process? Additionally, the SLA as presented here is not the wholly integrated SLA process, but rather the concerns that are known and specific to the CSI Interfaces. There are other Groups within Equant that have responsibility for the entire SLA process. **Response** from Shahidah Jefferies, SPE/SD, Harvey Kodama, Architect, and Steve Shankman, GOLD Team Lead: The SLA, typically, has not been a part of the Business Process Document. **Status:** Open. Currently, the SLA is included as an Appendix to this document with disclaimers noting that it is not a fully integrated SLA.
2.	Will the CSI data admin tool, as described in CSI CONOPS V2.5, be used to make any corrections in CSI? **Response** **Status**: Open
3.	How will CSI handle changes that GOLD makes to orders that are in progress? Will versioning be maintained for "orders in progress" before they become active services? **Response** **Status:** Open
4.	How will CSI handle the downtime since it is required to be available twenty-four hours per day, seven days per week? **Response** **Status:** Open
5.	Putting all the data quality and testing in Gold does not take into account that: - CSI will provide the USEID - CSI will receive data from other systems (i.e., legacy systems) - Billing systems get information from other systems and create requirements on the data quality that is passed from CSI. **Response** **Status:** Open

6.	Will GOLD have to add a function to allow the user to initiate the assignment of a CSI USEID? **Response** **Status:** Open
7.	Should the GOLD assign the USEID (since CSI will only know how this USEID is used after GOLD send the order details to CSI)? **Response** **Status:** Open
8.	Will GOLD be updated to include the CSI USEID field since GOLD currently does not have a USEID field for each service element? **Response** **Status:** Open
9.	Does the EQUANT ordering process include a Pre-Sales function that creates an Engineering Plan? Amon Nixson, the NSR Project Manager, is expecting the proposed Network Identifiers to be included on the order that comes from GOLD and goes to Provisioning. (This is the current process in Global One.) **Response** from Tony Fitzgibbon, GOLD UAT The Technical Support Team performs the same function as Pre-Sales. If the Network Ids are known and have been reserved, they would be included on the second Service Request Form (SRF2), and attached to the GOLD order when it is processed. (The SRF is broken out into two parts: SRF1 contains the technical details of the order. Each order has a SRF1. SRF2 contains technical details at a more granular level, and may not be included for every order. **Status:** Closed
10.	Is the network identifier shown on the Equant invoice? **Response** from Neil Whamond, Equant Billing, and Bob Griffin, STC The network identifier is not shown on the invoice, rather the network id is matched to its associated service. The service is printed on the invoice. **Status**: Closed

8.2 Glossary of Terms

The table below contains the definition of terms and abbreviations that are used in this document

Customer Service Inventory Interfaces, V1.0	
BCD	Billing Customer Database
CSI	Customer Service Inventory
GOLD	Global Order Lifecycle Delivery
PRD	Product
NSR	Network Service Repository

9.0 Appendix A: GOLD - CSI Service Level Agreement

Service Level Agreement

Note: The Service Level Agreement contained in this document does not supercede any Service Level Agreements that are the responsibility of other organizations. This document is not intended to be a fully integrated Service Level Agreement, but rather, an effort to describe specific concerns of the "GOLD - CSI" Interface,

The Service Level Agreement between the GOLD system and the CSI system defines the ownership of the data, accountability for data integrity, frequency of the data transmission, CSI system availability, and the escalation process.

9.1 Ownership of the GOLD Data

The GOLD System Administrator is responsible for identifying the users within the GOLD project that are responsible for the various portions of the GOLD data. The GOLD project is based on team roles being assigned to a customer such as a Sales Role or a Billing Role. Team Roles (users) input the portions of data applicable to their applications.

The GOLD Production Support will own the interface data and will be responsible for ensuring that the transmission is successful. In those instances in which application specific data is faulty or non-existent, GOLD Production Support will contact the Team Role to correct the data.

9.2 Accountability For GOLD Data Integrity

CSI is a repository for the data being sent from GOLD. For the most part, CSI will employ very few rules to validate data integrity, therefore, GOLD must ensure the quality of the data being sent to CSI by performing edits and data validation within the GOLD system.

9.3 Frequency Of GOLD Data Transmission

There are no standard intervals for submitting GOLD data to CSI, rather the data will be transmitted to CSI on a real-time basis when the orders are completed and submitted to provisioning.

9.4 CSI System Availability

The CSI system must be available 24 hours a days, 7 days per week to accommodate the GOLD order entry that will be performed at varying times in different parts of the world.

9.5 Escalation Process

Levels of escalation will be established based on the severity of the problem. The severities are listed below:

- Severity One - includes issues such as the interface is not operable and data can not be transmitted from GOLD to CSI. The CSI Project Manager will be notified and the problem must be resolved within four hours. Alternatively, if the data can not be transmitted from CSI to GOLD, the GOLD Project Manager will be notified and the problem must be resolved within the timeframe (four hours).
- Severity Two - includes issues such as the GOLD data has been successfully sent to CSI, but on retrieval from CSI the data does not exist. The CSI Project Manager will be notified and the problem must be resolved within eight hours.

10. Appendix B: CSI Interface To Billing Customer Data

Service Level Agreement

Note: The Service Level Agreement contained in this document does not supercede any Service Level Agreements that are the responsibility of other organizations. This document is not intended to be a fully integrated Service Level Agreement, but rather, an effort to describe specific concerns of the "CSI - BCD" Interface,

The Service Level Agreement between the CSI system and the BCD system defines the ownership of the data, accountability for data integrity, frequency of the data transmission, CSI system availability, and the escalation process.

10.1 Ownership of the CSI Data

The CSI system is responsible for maintaining a high level of quality for the CSI files that will be transmitted to BCD. The integrity of the data is protected by ensuring that edits and data validation are performed upon entry of the data into CSI. Testing will also be performed at the Billing Interface level. Refer to the "Agreement on Data Quality" Section of the *Service Level Agreement CSI-Billing Document* for details.

10.2 Accountability For CIS File Integrity

CSI is a repository for the customer's commercial data. As such, CSI should be required to maintain very few rules because the integrity of the data will have been validated and edited within the GOLD system. GOLD will then pass the data to CSI for storage in the CSI repository. All changes to the data stored in CSI will be made in GOLD and passed to CSI. Therefore, the data being passed from CSI to BCD should not have to be checked.

However, to ensure the success of passing the files to BCD in the format required by BCD, CSI will maintain system rules. The system rules are defined in the CSI Use Cases.

10.3 Frequency Of CIS File Transmissions

Only one file will be sent to BCD at a time. The two types of files to be sent are the Partial Dump File and the Delta File. The Partial Dump File will be transmitted to BCD every week and on demand as requested. The Delta File will be submitted to BCD every day except on the day that the Partial Dump File is sent to BCD.

10.4 CSI System Availability

The CSI system must be available twenty-four (24) hours a day, seven (7) days per week to accommodate the systems interacting with CSI at varying times from different parts of the world.

10.5 Escalation Process

Levels of escalation will be established based on the severity of the problem. The severities are listed below:

- Severity One - includes issues such as the interface is not operable and files can not be transmitted from CSI to BCD.
  - If the file is a Partial Dump file, then CSI should provide the file as soon as possible.
  - If the file is a Delta file, then CSI will include the missing period with the next Delta file.
- Severity Two - includes issues such as the CSI data has been successfully sent to BCD, but on transmission BCD found major file format errors.
  - For Partial Dump Files, CSI will provide a new file as soon as possible.
  - For Delta Files, CSI will include the missing period with the next Delta file.