PHSA SUPPLY CHAIN EDI ENGAGEMENT GUIDELINES

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1. Change log

Version	Author	Date	Notes
1.0	Tony LeBlanc	Dec 8 2016	Original
1.1	Daniel Venton	July 9 2019	Expanded on 832 details
2.0	Daniel Venton	Dec 6 2019	Full document revamp
2.1	Daniel Venton	Feb 3 2019	832 details – Full offering only
3.0	Daniel Venton	Aug 15 2021	Document revamp for broad engagement

2. Purpose

This document is for the sole purpose to define the parameters from which PHSA supply chain engages in the use of Electronic Data Interchange (EDI) with trading partners. It should be limited to general rules and guidelines that help the HAs make informed and relevant decisions about the implementation, context behind many of the choices made, and ongoing EDI with trading partners.

3. Background

PHSA Supply Chain (PHSA SC) deals with all of procurement for all health authorities in the Province of British Columbia. This includes:

- Interior Health Authority (IHA)
- Northern Health authority (NHA)
- Fraser Health Authority (FHA)
- Vancouver Island Health Authority (VIHA)
- Vancouver Coastal Health Authority (VCH)
- Providence Health Care (PHC)
- Provincial Health Services Authority (PHSA)

These seven health authorities operate supply chain functions using five separate and distinct systems that are based on two different ERP applications.

4. Document specific notes

4.1 810 – Invoice

The supplier must send applicable tax information at the line level in order to properly match to line taxes on a purchase order item. If you do not send tax details on a line level, PHSA SC systems cannot perform proper three-way matching and the end result is an increase in costly match exceptions. This cannot be overridden so PHSA requires that you make the changes necessary to be able to comply with this requirement.

If discount percentage changes to a lower amount PHSA will continue to take the discount percentage presently in our systems until PHSA Accounts Payable (AP) is notified of this change directly.

4.2 832 – Catalog update

It is agreed and understood that the vendor will send the correct price to PHSA in their catalogues irrespective of whether that happens to be a contract, PHSA specific, sales agreement, or list price.

Additional Details

During the engagement process, the vendor should provide the following information to the EDI Engagement team:

- If they are a product manufacturer.
- If they publish to ECCNET.
- If they publish to GDSN Canada.

GTIN data

GTIN information should only be provided when the correct GTIN for a packaging unit is available. PHSA encourages the vendor to populate this information from a GDSN compliant product registry, to minimize discrepancies.

Packaging unit

PHSA requests 832s contain data for each and every packing unit available to purchase, down to the lowest unit of measure. *Each Unit of Measure needs to be detailed in its own LIN loop with a single CTP*. This is to support a technical limitation in Meditech in not being able to process a CTP loop inside the LIN Segment. See the 832 Specifications document for details.

Item Description Limitations

Meditech 5.4 ^ 6.1 (FH, IH/NH, VIHA)	15 characters for Vendor Catalogue
PeopleSoft	30 characters for item description

Content and Frequency

PHSA requests a full update a minimum of once a month, even if no pricing changes are expected. This will allow PHSA to sustain data integrity, by correcting any possible errors made in PHSA ERP systems.

The 832 file should contain **all items and UOMs that we can purchase from you** with contract pricing where an item is on contract and PHSA specific pricing where available.

The following are **NOT** acceptable alternatives for the above options for a complete 832 file:

1. A catalogue containing **only** items that are on contract or price agreement
2. A catalogue containing **only** items that have undergone recent updates and changes since the last catalogue transmission

832 Data Usage

An 832 will not automatically create new item records in our ERP systems. 832 data will only be used to update pricing, and to fuel future initiatives, it will not be used to add an item catalogue to our ERP in bulk.

PHSA only uses 832s to update pricing for items already listed in our ERP systems. PHSA Supply Chain has confidence that its buyers will only itemize items after getting pricing from the vendor, and that once a price has been settled on by the vendor that future 832 documents will include that updated pricing. We do not expect our vendors to maintain PHSA pricing on tens of thousands of unordered products, only for PHSA specific pricing to be used once available.

PHSA has controls in place to limit the automated updating of item pricing. Automated systems will only update items that fall within the margins of our business rules, a threshold set by our Sourcing team. Anything above that threshold or on a contract will be reviewed by staff before being approved and updated.

PHSA workload will not be negatively affected by a large 832 file. PHSA staff will not manually review, maintain and itemize every 832 record that is sent. The primary use of these files is to match with existing lines in an automated and streamlined process. Our systems can process 832s with hundreds of thousands of lines; file size is not a concern.

PHSA will store 832 data to support other processes. To support ongoing data efforts, PHSA stores 832 data it receives. This is how that stored data will be used:

- Vendor 832 data will only be shared with internal PHSA Supply Chain
- Vendor 832 data will not be shared with care staff at health care sites
- Vendor 832 data will not be shared with other suppliers
- At a supplier's request, the EDI team can hide 832 pricing information internally and make it unavailable for reports.
- Vendor 832 data will not be used in any competitive process or RFP - when it comes time to make decisions, PHSA Supply Chain will request specific data from our partners directly.

Some intended uses of the stored data include, but are not limited to:

Reporting to support the automation of 832 data – By providing visibility to the incoming data, we can monitor the success of the process and identify gaps or data errors.
Product Discovery – With visibility into the range of products our vendors sells, efforts to identify products as substitutes or to support new care initiatives will be more efficient.
Data cleansing – Stored data will let PHSA review details such as part numbers, UOMs and Tax information to ensure they're synchronized with our partners.

Contract items

In addition to the monthly updates, PHSA requests an update containing effected items at least 10 business days prior to the start date of a contract and/or the end data of a contract, should the effected items be greater than 10. The effective date attached to the items must be either the Start date or end date respectively. The following also applies to what PHSA Supply Chain refers to as a price agreement.

Within two working days after contract expiry, PHSA requests an update file containing all items on the contract encoded with an appropriate effective date.

When a contract expires and we negotiate a price agreement, PHSA requests a file be sent containing all items on the price agreement with the agreed price and appropriate effective date.

4.3 850 – Purchase order

PHSA Supply Chain (PHSA SC) will dispatch Purchase orders in real time.

PHSA SC will supply GTIN information when entered and available in our system.

Upon implementation against provincial standards is complete, PHSA SC commits to sending as many Purchase Orders as 850s as is technically possible.

There are situations where existing PHSA SC systems are insufficient and our staff is forced to use free text line and header comments to capture nuances of different business streams, and at this time we are not able to provide an alternative that is X12 compliant. Some examples of issues include but are not limited to: Serial Numbers, Lot Numbers, one-time shipping locations, special handling or instructions.

POs unsuitable for EDI dispatch will be delivered via Fax or Email to prevent possible integration failures on the vendor side, and to ensure that important details needed to handle the specific arrangements reach the supplier.

Purchase Orders sent via Fax or Email should be handled by human effort and not sent through a conversion tool to turn them into an EDI compliant document for ease of processing. PHSA SC asks our suppliers to trust in our evaluation of whether a Purchase Order can be handled by EDI at that time.

PHSA SC requests that for Purchase Orders sent via non-EDI methods, that we receive corresponding 810s, 855s, and 856 documents in response.

4.4 855 – Purchase order acknowledgement

PHSA SC must receive an 855 acknowledgement that contains details for every line of every PO that a health authority sends you. This is regardless of whether or not the PO is sent by EDI. This will allow PHSA to efficiently monitor one stream of information for pricing and backorder concerns and minimize miscommunications.

PHSA SC should receive an 855 acknowledgement upon process of the order, and not in batch transmissions later in the business day. PHSA recommends a 2 hour window at most between order processing and 855 transmission. As data regarding backorders is often unavailable at time of order processing, vendors should adhere to the following thresholds for backorder reporting:

1) For goods requested delivery within 24 hours, within 120 minutes of receiving the order into your system.
2) For goods requested delivery within 48 hours, by close of business on the day the PO was received into your system.
3) For goods requested delivery over 48 hours, within 24 hours of receiving the PO into your system.

PHSA SC requests a new acknowledgement be sent whenever a change is made to the order that effects shipping date or quantity or price from the original 855 transmission. In this instance, PHSA SC will accept exception only acknowledgements.

PHSA SC requires compliance with our 855 specifications for ACK coding and supporting details. By providing proper coding of acknowledgement will help streamline our expediting processes and enable us to provide more specific information to our purchasing teams enabling them to be more efficient.

Please refer to the *PHSA 855 Specification Detail* for PHSA's requirements regarding a variety of backorder scenarios.

4.5 856 – Advance ship notice

- Advance ship notices should be sent within 60 minutes of dispatch.
- Lot Numbers and Expiry dates must be included for all lot controlled items

4.6 997 – Functional acknowledgement

4.7 Out of scope documents

The following documents are considered out of scope for the PHSA EDI engagement project:

820 – EFT with Remittance
857 – Advanced Ship Notice with Invoice
860 – Purchase Order Change Notice
867 – Product Transfer and Resale Report
888 – Item Maintenance

5. System specific requirements

Cost distribution on PO lines

Return documents such as the 810, 855, and 856 will need to have the same line number and quantity distribution as the original Purchase Order.

Due to limitations in the Meditech system that will not distribute cost at a sublevel on a PO line, the system can create multiple lines on purchase order for a single item. There is no existing way to work around this. PHSA SC understand that it's common for vendor systems to combine these lines for identical product onto a single line**.** When a return document is received, Meditech will only match the first instance of this catalog number and will usually causes a quantity exception as the quantities will not line up. Even if the original lines are kept separated and in the same order as sent in a PO the Meditech system will still only match to the first instance of the vendor catalog on the line.

This is the reason why PHSA SC requires original PO line reference in the IT1 segment of the 810 Invoice, the PO1 segment of an 855 PO Acknowledgement and in the LIN segment of the 856 Advance Ship Notice. Work with Meditech to see if they can configure the system to parse this properly when processing invoices is ongoing and in the mean time our AP clerks deal with these exceptions using custom reports.

Taxes on SAC charges

In 810 documents, the TDS Segment must not include tax amounts charged on SAC (Such as Freight and Special Handling), and that Tax amount must be included in a TXI segment in the SAC loop.

Meditech requires that the TDS only contain the total of all lines and applicable taxes and any amount in in the SAC segment but NOT the applicable taxes to the SAC segment. PHSA SC is working with Meditech to get this addressed as we understand that the TDS typically should contain a total of all amounts.

Additional charges on an invoice

Meditech has only one place on an invoice to place additional charges like shipping charges, handling charges etc. Also the system can only interoperate the list codes supplied the 810 specification document in the SAC02 element.

Partial backorders

When an 855 is sent in any backorder situation, two ACK segments need to be sent. One segment for the amount the amount being sent on time (even if the amount is zero), and a second to for the backordered amount that won't be fulfilled

PHSA understands a common practice is to send a segment with less than the full order quantity with the assumption that an ERP can make the inference – if only 5 of the 10 cases of product are being shipped, the remaining 5 must be backordered by default. Meditech cannot make this conclusion – it will assume 1 ACK segment will apply to the entire line quantity and this denies PHSA SC staff visibility to act on potential supply shortfalls.

Please review the *PHSA SC 855 Specification Detail* carefully – this document contains extensive details about what PHSA SC requires in a variety of backorder scenarios for the data to report correctly to PHSA buyers and analysts.

Comment and free text values

Specification documents will list all acceptable values that can be used. During engagement, both parties will come to an agreement of which ones a particular vendor will support. Please ensure only ANSI X12 compliant characters are used.

6. General format and transport

Transport shall continue to take place using either GHX or Carenet (Commport), depending on region. PHSA SC has no plans to move all operations to one VAN at this time. Commport is the only VAN currently transmitting to each of PHSA SC's health authorities – if a decision has to be made to consolidate to one VAN, it must be Commport. GHX is only available in Interior/Northern Health Authority and in Vancouver Coastal Health/Providence Health Care.

In addition, PHSA SC has entered a partnership with TrueCommerce as transport option for the of 832 catalogue files only, separate from routine EDI transactions with other VANs.

Currently, PHSA SC only supports the ANSI X12 version 4010 EDI standards. Our systems will not allow us to go to a newer version.

6.1 General specifications

Specification	Requirement
EDI Standard	X12
X12 Version Used	4010
VANs (Value added Networks) used	Emergis or GHX, depending on individual HA setup
ISA 05 and 07 Qualifier	ZZ
Segment Terminator	tilde (~)
Element Separator	carat (^) is preferred, asterisk (*) is also available
Component Separator	Pipe (|) is preferred, forward slash (/)is also available
Send and Receive Frequency	810 – Send every 15 minutes - minimum daily

	832 – send on Request by PHSA 850 – send every 15 minutes 855 – send every 15 minutes 856 – send every 15 minutes 997 – send every 15 minutes

6.2 Standards

- PHSA SC only wishes to comply with a single EDI standard.
- The current Standard widely used in the Health Care industry in North America is ANSI ASC X12. PHSA SC is currently utilizing version 4010.
- Any move to a new version must be approved but the EDI Engagement team and PHSA SC management team.
- The inclusion of GTIN numbers for each unit of measure when possible.
- PHSA SC is in the process of adopting the use of GLN numbers for vendor locations, bill to and ship to locations. This work is ongoing.

7. Compliance

7.1 General compliance

All trading partners must be fully compliant with ANSI X12 v4010 standards at the transport and security layers of the transactions. These include but are not limited to the ISA and GS segment.

7.2 Specific compliance

Compliance to PHSA SC EDI Standards will need to be established before transmission of documents can begin via a process hereafter referred to as Specification Review. PHSA SC strongly recommends vendors start no work to begin complying with PHSA SC Standards before this review is complete

Once Specification review is completed, and compliance is approved by the EDI Engagement Team, work to implement a trading partner connection and transmission of documents will begin.

A copy of the specification details containing the agreed upon formatting and content will be retained by PHSA SC and a copy sent to the vendor implementation team. Going forward, this Specification Agreement will be the record of what was agreed upon between PHSA SC and the Vendor.

7.3 Compliance definition

A partner is only compliant when they commit to providing the segments indicated as being Mandatory in our Specification details. Each of these elements is required for a document to successfully integrate province wide. Trading partners commit to sending documents with the formatting and data points agreed upon.

7.4 Compliance monitoring

Compliance will be monitored by PHSA Supply Chain and where a health authority is experiencing less than a 95% compliance rate to the agreed upon EDI specification documents, or an error rate in excess of 5%. PHSA EDI Engagement team will report this to the vendor and request an action plan on how the trading partner vendor will get back to a minimum of a 95% compliance level.

If an extended period without having compliance issues addressed or the transmissions of documents results in unreliable integration, PHSA SC may request a halt to all EDI transmissions until which time the issues are addressed.

8. Trading partner additions and changes

Net new partners

While PHSA SC EDI Engagement will actively reach out to existing partners and high volume suppliers, EDI should not be expected from every vendor who is EDI capable. The limited staff maintaining PHSA SC's EDI infrastructure should be focused on partnerships where automation provides the most value to PHSA Supply Chain.

Vendors with no existing EDI partnership with BC health authorities who are interested in setting up an EDI partnership should reach out to PhsaEdiEngagement@phsa.ca after reviewing the PHSA SC EDI Guidelines as well as other document specifications which will be made available on the PHSA website.

To be considered, a trading partner must:

- Already receive, or reliably predict a sufficient volume of orders with PHSA SC
- Do business with most if not all of the health authorities PHSA SC represents
- Commit to an engagement process to ensure compliant documents are being traded
- Engage in business where EDI is a reliable way to transmit purchase orders

The engagement team will request information and details before making. The EDI compliance team will then make a final decision of onboard the new partner. If the decision is made to onboard a new partner, they will set a schedule on implementation.

All new partners will have to go through the full engagement process prior to onboarding.

9. Documents

9.1 Document types for engagement

- The engagement process will focus on the following document types:
    - 810 – Invoice
    - 832 – Vendor catalogue update

- 850 – Purchase Order
- 855 – Purchase Order Acknowledgements
- 856 – Advanced ship notices
- 997 – Functional Acknowledgment (Peoplesoft Only)

9.2 Document types currently not in scope

- Other document types that are currently outside of the scope of the PHSA SC engagement effort, and are not suitable alternatives to the requested document types. These may be implemented in the future depending on system capabilities for both the vendor and PHSA:
  - 852 – Product Activity Data
  - 857 – Advanced Ship Notice w Invoice
  - 860 – Purchase Order Change Notification
  - 888 – Item Data

9.3 Change control

The master copy of the documents shall be retained by PHSA SC on the PHSA SC SharePoint site at the follow location.

http://our.healthbc.org/sites/pmic/pmicv2/Shared%20Documents/EDI%20Standardization

Public facing versions of these documents will be made available at on the Vendor Information section of the PHSA Website.

All significant specification changes will be made by PHSA SC and copies of changed document shall be sent by the PHSA SC Engagement Team upon update.

This agreement consists of the following set of documents:

Review Specification Feedback Template
810 Specification Template
832 Specification Template
850 Specification Template
855 Specification Template
856 Specification Template
Appendix table 1- Acceptable UOM Values

9.4 Vendor specification agreements

Each document specification shall be tailored to each vendor dependent on their particular constraints and requirements while attempting to keep to as tight a standard across all vendors as possible. One set of these documents will be kept for each vendor to be used as a reference, issue resolution and change control. Another set will be sent to the vendor for their records.

It is expected that both PHSA and the vendor maintain a 100% adherence to these agreed upon specifications. All delivered documents shall contain all segments and elements agreed upon unless otherwise agreed to between PHSA and the Vendor. Readiness to deploy must be determined between PHSA and the Vendor before transmission shall begin.

10. Implementation

Implementation will be started once the engagement process is done on a particular document type. PHSA SC will endeavor to complete engagement on as many document types as feasible before continuing to implement each document type in the following order:

- 832 Catalog Updates
- 850 Purchase orders
- 997 Functional Acknowledgement (PeopleSoft Only)
- 855 Purchase Order Acknowledgements
- 810 Invoice
- 856 Advance Ship Notices

11. General notes

GTIN – We have encoded all of our documents to include GTIN numbers for all products. Although without ability to take full advantage of these product Unit specific identifiers we hope to leverage this information to allow us to begin to normalize our item dictionaries in our 5 different systems, more accurately eliminate duplicate items, and it will help us to more accurately analyze our spend. We are requesting our vendors to comply with this as much as they are able to. In addition to our EDI standardization implementations that utilize GTIN numbering, we hope to begin obtaining this data form a GDSN compliant repository in the near future.

GLN – As we implement with you we hope to transition away from the traditional ad hoc method of assigning ship to numbers for our direct ship locations and move to using GLN numbering for this. Most of our direct ship locations are already registered with GS1 and we will review, update and add any additional ones as needed to make the transition compete. This will simplify the management and maintenance of ship to numbers going forward.

12. References

- Data Interchange Standards Association – Accredited Standards Committee X12, Electronic Data Interchange - V4010 - Publication Number ASC X12S/97 - 372

- GS1 Canada - Global supply chain standards organization www.gs1ca.org

- GHX Canada – www.ghx.ca