



100 New Britain Blvd
Chalfont, PA 18914
Tel: 215-997-8989
E-mail: datacap@dcap.com

dsiPDCX
Credit Transactions
XML Specification
Supplement 2

V01.42

Proprietary Information and Acceptable Use Notice:

This document contains information proprietary to Datacap Systems Inc.
The only acceptable use for the information contained herein is to interface third party systems exclusively to Datacap's Tran™ and ePay™ server products. Any other use is strictly prohibited.

Copyright and Trademark Notices

Copyright © 2010-2015 Datacap Systems Inc.
100 New Britain Blvd.
Chalfont, Pennsylvania 18914 USA
All rights reserved.

Notice

This document contains information proprietary to Datacap Systems Inc. The only acceptable use for the information contained herein is to interface third party systems exclusively to Datacap's ePay server and Tran products. Any other use is strictly prohibited.

dsiPDCX®, dsiEMVX™, dsiEMVUS™, DSIEMVClientX™, DSIClientX®, DataTran™, NETePay™, DIALePay™, GIFTePay™, ePay™, ePay Administrator™, DataTran™, DialTran™, IPTran™, IPTranLT™, TwinTran™, AutoLoad™, NoLoad™, PSCS™, DatacapConnect™, dsiPDCiOS™, dsiPDCAndroid™ and Datacap names and logos and all related trademarks, trade names, and other intellectual property are the property of Datacap Systems Inc. and cannot be used without its express prior written permission.

Revision History

00.01	06 Dec 2010	<ul style="list-style-type: none">• Preliminary Draft Release
00.02	09 Dec 2010	<ul style="list-style-type: none">• Incorporated <TranType> and <PadType> tags for 'SecureDeviceInit' Admin transaction.
00.03	10 Dec 2010	<ul style="list-style-type: none">• Incorporated advice on Check and EBT transaction capability
01.00	26 May 2011	<ul style="list-style-type: none">• Formal Release• Added configuration and data flow information for VFI Vx810 support• Added new values for <PadType> and <SecureDevice>
01.12	30 Aug 2011	<ul style="list-style-type: none">• Added configuration and data flow information for UIC PP795 support• Added new values for <PadType> and <SecureDevice>
01.15	20 Apr 2012	<ul style="list-style-type: none">• Added configuration and data flow information for VivoPay 4500m support
01.16	24 May 2012	<ul style="list-style-type: none">• Document reorganization; Core Integration Specification and XML transaction detail in separate sections by class• Added configuration and data flow information for MagTek MiniMSR and SureSwipe• Added new TranType <GetPrePaidStripe>
01.21	27 Aug 2012	<ul style="list-style-type: none">• Added new tags <LastFourCheck> and <CardholderID>• Added configuration and data flow information for J2 POS Model 2650 Internal MSR support
01.22	30 Sep 2012	<ul style="list-style-type: none">• Release to synchronize all supplement versions; no changes to this supplement since V1.21
01.28	14 Jul 2013	<ul style="list-style-type: none">• Release to synchronize all supplement versions; no changes to this supplement since V1.21
01.28	04 Oct 2013	<ul style="list-style-type: none">• Added updates for IPTranLT
01.30	22 Nov 2013	<ul style="list-style-type: none">• Release to synchronize all supplement versions; no changes to this supplement since V1.28
01.32	25 Jan 2014	<ul style="list-style-type: none">• Release to synchronize all supplement versions; no changes to this supplement since V1.28
01.33	01 Mar 2014	<ul style="list-style-type: none">• Release to synchronize all supplement versions; no changes to this supplement since V1.28
01.34	13 Apr 2014	<ul style="list-style-type: none">• Release to synchronize all supplement versions; no changes to this supplement since V1.28
01.38	24 Sep 2014	<ul style="list-style-type: none">• Release to synchronize all supplement versions; no changes to this supplement since V1.28
01.42	13 Sep 2015	<ul style="list-style-type: none">• Release to synchronize all supplement versions; no changes to this supplement since V1.28

Table of Contents

2.0	Credit XML Transaction Requests	5
2.1	Transaction: Credit – Sale	5
2.2	Transaction: Credit - Return.....	8
2.3	Transaction: Credit - Void Sale	11
2.4	Transaction: Credit - Void Sale By Record.....	14
2.5	Transaction: Credit - Void Return.....	17
2.6	Transaction: Credit - Void Return By Record	20
2.7	Transaction: Credit - AuthOnly	23
2.8	Transaction: Credit - PreAuth	26
2.9	Transaction: Credit – VoiceAuth (Force)	30
2.10	Transaction: Credit - PreAuth Capture	33
2.11	Transaction: Credit - Adjust.....	36
2.12	Transaction: Credit – Adjust By Record	39
2.13	Transaction: Credit – Balance Inquiry	42
2.14	Transaction: Credit – Zero Auth (Card Check)	45
2.15	XML Transaction Response.....	48
2.16	dsiPDCX Compatible Servers	52
2.17	Credit for NETePay Compatible Servers	52

2.0 Credit XML Transaction Requests

2.1 Transaction: Credit – Sale

Use: To process a payment on a credit card (VISA, MasterCard, American Express, Discover, Carte Blanche, Diner's Club, JCB or Other).

XML Template: Credit Sale

```
<?xml version="1.0"?>
<TStream>
  <Transaction>
    <IpAddress>999.999.999.999</IpAddress>
    <IpPort>999999</IpPort>
    <TranDeviceID>TranDeviceID</TranDeviceID>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <OperatorID>OperatorID</OperatorID>
    <TranType>Credit</TranType>
    <Duplicate>Override</Duplicate>
    <CardType>CardType</CardType>
    <TranCode>Sale</TranCode>
    <SecureDevice>ValidSecureDeviceID</SecureDevice>
    <ComPort>ComPort</ComPort>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <RefNo>RefNo</RefNo>
    <PartialAuth>PartialAuth</PartialAuth>
    <CardholderID>CardholderID</CardholderID>
    <LastFourCheck>LastFourCheck</LastFourCheck>
    <Account>
      <AcctNo>SecureDevice</AcctNo>
    </Account>
    <Amount>
      <Purchase>Purchase</Purchase>
      <Tax>Tax</Tax>
    </Amount>
    <SequenceNo>SequenceNo</SequenceNo>
    <AVS>
      <Address>Address</Address>
      <Zip>ZIP</Zip>
    </AVS>
    <CVVData>CVVData</CVVData>
    <SequenceNo>SequenceNo</SequenceNo>
    <TerminalName>TerminalName</TerminalName>
    <ShiftID>ShiftID</ShiftID>
    <Signature>Signature</Signature>
    <TranInfo>
      <CustomerCode>CustomerCode</CustomerCode>
    </TranInfo>
  </Transaction>
</TStream>
```

Element	Req	Min	Max	Type	Description
IpAddress	O	7	15	AN	IP address of server to use for this transaction. This address will override the addresses obtained via ServerIPConfig. If an IPTranLT is the device to receive the command, this tag should be omitted.
IpPort	O	1	5	N	IP port number on server to use for this transaction. If omitted, default port is 9000. If an IPTranLT is the device to receive the command, this tag should be omitted.
TranDeviceID	O	1	24	AN	If an IPTranLT is the device to receive the command, this tag must be included. The TranDeviceID (DID) value is printed on a sticker on the bottom of every IPTranLT.
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	1	24	AN	For general use Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included. For reversal support with selected processors Use a unique POS workstation number (exactly 3 digits 000-999) for multi-workstation locations.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
TranType	Y	1	20	A	"Credit"
Duplicate	O	1	20	AN	"Override" - To force approval of a transaction that was previously rejected as a duplicate by the processor.
CardType	O	3	20	AN	"VISA", "M/C", "AMEX", "DCLB", "DCVR", "JCB", "OTHER"
TranCode	Y	1	40	A	"Sale"
SecureDevice	Y	1	40	AN	Secure Device type. See Sections 1.1 and 1.3.3.3 of dsipDCX Core Integration Specification for ValidSecureDeviceID values.
ComPort	Y	1	3	N	The true RS-232 serial port or virtual serial port for USB devices that use a virtual serial port driver. Port number to which SecureDevice is attached (0-255).
InvoiceNo	Y	1	16	AN	Invoice number – sequential receipt number, check number, or other unique transaction identifier.
RefNo	Y	1	16	AN	Use the same data as InvoiceNo
PartialAuth	O	1	16	AN	If value equals "Allow", then transaction may be authorized for an amount different than supplied in <Amount>:<Purchase> tag. See the <Authorize> tag in the response to determine how much was actually authorized. Note: The ability to support Partial

					Authoization will be mandated by the processors in the near future.
CardholderID	O	1	16	AN	When no cardholder authentication (signature or PIN entry) is unavailable from a self-serve terminal, use value "CAT". Otherwise, omit this tag.
LastFourCheck	O	4	4	N	The manual entry of only the last four digits of the cardholder account number (as printed on the front of the card) is verified against the magnetic Track 2 data read by the Secure Device. If a mismatch occurs, an error will be returned.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
Amount:Purchase	Y	1	8	N	Purchase price (with 2 place decimal – eg. 29.95)
Amount:Tax	O	1	8	N	For Purchase Card Level II transactions – Sales Tax amount (with 2 place decimal – eg. 29.95)
SequenceNo	O	1	20	AN	For reversal support with selected processors Use '00000000' for first transaction in new installations. For all subsequent transactions, use the SequenceNo value returned in the previous transaction response.
AVS:Address	O	1	8	N	For manually entered (hand-keyed) account numbers Address (building street) number. Supply this data whenever using a manually entered account number to ensure best transaction qualification.
AVS:Zip	O	1	9	N	For manually entered (hand-keyed) account numbers Zip code. Supply this data whenever using a manually entered account number to ensure best transaction qualification.
CVVData	O	3	4	N	For manually entered (hand-keyed) account numbers Three or four CVV card digits or "None" or "Illegible". Supply this data whenever using a manually entered account number to ensure best transaction qualification.
TerminalName	O	1	20	AN	Terminal name
ShiftID	O	1	20	AN	Shift identification
Signature	O	1	2048	AN	Digitized signature
TranInfo:CustomerCode	O	1	17	AN	For Purchase Card Level II transactions – customer's identifying information; such as PO number.

Note:

When implementing support for the <PartialAuth> tag, the logic should inspect the amount returned in the <Authorize> tag of the response to determine how much was actually authorized. The ECR/POS tendering logic should be prepared to ask for additional tenders in the event that an authorization is approved for a lower amount than requested.

2.2 Transaction: Credit - Return

Use: To process a return (refund) to a credit card (VISA, MasterCard, American Express, Discover, Carte Blanche, Diner's Club, JCB or Other).

XML Template: Credit Return

```
<?xml version="1.0"?>
<TStream>
  <Transaction>
    <IpAddress>999.999.999.999</IpAddress>
    <IpPort>99999</IpPort>
    <TranDeviceID>TranDeviceID</TranDeviceID>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <OperatorID>OperatorID</OperatorID>
    <TranType>Credit</TranType>
    <Duplicate>Override</Duplicate>
    <CardType>CardType</CardType>
    <TranCode>Return</TranCode>
    <SecureDevice>ValidSecureDeviceID</SecureDevice>
    <ComPort>ComPort</ComPort>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <RefNo>RefNo</RefNo>
    <CardholderID>CardholderID</CardholderID>
    <LastFourCheck>LastFourCheck</LastFourCheck>
    <Account>
      <AcctNo>SecureDevice</AcctNo>
    </Account>
    <Amount>
      <Purchase>Purchase</Purchase>
    </Amount>
    <SequenceNo>SequenceNo</SequenceNo>
    <TerminalName>TerminalName</TerminalName>
    <ShiftID>ShiftID</ShiftID>
    <Signature>Signature</Signature>
  </Transaction>
</TStream>
```

Element	Req	Min	Max	Type	Description
IpAddress	O	7	15	AN	IP address of server to use for this transaction. This address will override the addresses obtained via ServerIPConfig. If an IPTranLT is the device to receive the command, this tag should be omitted.
IpPort	O	1	5	N	IP port number on server to use for this transaction. If omitted, default port is 9000. If an IPTranLT is the device to receive the command, this tag should be omitted.
TranDeviceID	O	1	24	AN	If an IPTranLT is the device to receive the command, this tag must be included. The TranDeviceID (DID) value is printed on a sticker on the bottom of every IPTranLT.
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	1	24	AN	For general use Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included. For reversal support with selected processors Use a unique POS workstation number (exactly 3 digits 000-999) for multi-workstation locations.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
TranType	Y	1	20	A	"Credit"
Duplicate	O	1	20	AN	"Override" - To force approval of a transaction that was previously rejected as a duplicate by the processor.
CardType	O	3	20	AN	"VISA", "M/C", "AMEX", "DCLB", "DCVR", "JCB", "OTHER"
TranCode	Y	1	40	A	"Return"
SecureDevice	Y	1	40	AN	Secure Device type. See Sections 1.1 and 1.3.3.3 of dsiPDCX Core Integration Specification for ValidSecureDeviceID values.
ComPort	Y	1	3	N	The true RS-232 serial port or virtual serial port for USB devices that use a virtual serial port driver. Port number to which SecureDevice is attached (0-255).
InvoiceNo	Y	1	16	AN	Invoice number - sequential receipt number, check number, or other unique transaction identifier.
RefNo	Y	1	16	AN	Use the same data as InvoiceNo
CardholderID	O	1	16	AN	When no cardholder authentication (signature or PIN entry) is unavailable from a self-serve terminal, use value "CAT". Otherwise, omit this tag.
LastFourCheck	O	4	4	N	The manual entry of only the last four digits of the cardholder account number (as printed on the front of the card) is verified against the magnetic Track 2 data read by the Secure Device. If a mismatch occurs, an error will be returned.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice'

					To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
Amount:Purchase	Y	1	8	N	Purchase price (with 2 place decimal – eg. 29.95)
SequenceNo	O	1	20	AN	For reversal support with selected processors Use '00000000' for first transaction in new installations. For all subsequent transactions, use the SequenceNo value returned in the previous transaction response.
TerminalName	O	1	20	AN	Terminal name
ShiftID	O	1	20	AN	Shift identification
Signature	O	1	2048	AN	Digitized signature

2.3 Transaction: Credit - Void Sale

Use: To void a previously completed sale (payment) transaction in the current batch on a credit card (VISA, MasterCard, American Express, Discover, Carte Blanche, Diner's Club, JCB or Other).

XML Template: Credit Void Sale

```
<?xml version="1.0"?>
<TStream>
  <Transaction>
    <IpAddress>999.999.999.999</IpAddress>
    <IpPort>99999</IpPort>
    <TranDeviceID>TranDeviceID</TranDeviceID>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <OperatorID>OperatorID</OperatorID>
    <TranType>Credit</TranType>
    <CardType>CardType</CardType>
    <TranCode>VoidSale</TranCode>
    <SecureDevice>ValidSecureDeviceID</SecureDevice>
    <ComPort>ComPort</ComPort>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <RefNo>RefNo</RefNo>
    <CardholderID>CardholderID</CardholderID>
    <LastFourCheck>LastFourCheck</LastFourCheck>
    <Account>
      <AcctNo>SecureDevice</AcctNo>
    </Account>
    <Amount>
      <Purchase>Purchase</Purchase>
    </Amount>
    <SequenceNo>SequenceNo</SequenceNo>
    <TerminalName>TerminalName</TerminalName>
    <ShiftID>ShiftID</ShiftID>
    <Signature>Signature</Signature>
    <TranInfo>
      <AuthCode>AuthCode</AuthCode>
      <AcqRefData>AcqRefData</AcqRefData>
    </TranInfo>
  </Transaction>
</TStream>
```

Element	Req	Min	Max	Type	Description
IpAddress	O	7	15	AN	IP address of server to use for this transaction. This address will override the addresses obtained via ServerIPConfig. If an IPTranLT is the device to receive the command, this tag should be omitted.
IpPort	O	1	5	N	IP port number on server to use for this transaction. If omitted, default port is 9000. If an IPTranLT is the device to receive the command, this tag should be omitted.
TranDeviceID	O	1	24	AN	If an IPTranLT is the device to receive the command, this tag must be included. The TranDeviceID (DID) value is printed on a sticker on the bottom of every IPTranLT.
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	1	24	AN	For general use Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included. For reversal support with selected processors Use a unique POS workstation number (exactly 3 digits 000-999) for multi-workstation locations.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
TranType	Y	1	20	A	"Credit"
CardType	O	3	20	AN	"VISA", "M/C", "AMEX", "DCLB", "DCVR", "JCB", "OTHER"
TranCode	Y	1	40	A	"VoidSale"
SecureDevice	Y	1	40	AN	Secure Device type. See Sections 1.1 and 1.3.3.3 of dsiPDCX Core Integration Specification for ValidSecureDeviceID values.
ComPort	Y	1	3	N	The true RS-232 serial port or virtual serial port for USB devices that use a virtual serial port driver. Port number to which SecureDevice is attached (0-255).
InvoiceNo	Y	1	16	AN	Invoice number - sequential receipt number, check number, or other unique transaction identifier.
RefNo	Y	1	16	AN	Use the RefNo value returned in the original Sale transaction response
CardholderID	O	1	16	AN	When no cardholder authentication (signature or PIN entry) is unavailable from a self-serve terminal, use value "CAT". Otherwise, omit this tag.
LastFourCheck	O	4	4	N	The manual entry of only the last four digits of the cardholder account number (as printed on the front of the card) is verified against the magnetic Track 2 data read by the Secure Device. If a mismatch occurs, an error will be returned.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'

Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
Amount:Purchase	Y	1	8	N	Purchase price (with 2 place decimal – eg. 29.95)
SequenceNo	O	1	20	AN	For reversal support with selected processors Use '00000000' for first transaction in new installations. For all subsequent transactions, use the SequenceNo value returned in the previous transaction response.
TerminalName	O	1	20	AN	Terminal name
ShiftID	O	1	20	AN	Shift identification
Signature	O	1	2048	AN	Digitized signature
TranInfo:AuthCode	Y	1	16	AN	Use the AuthCode value returned in the original Sale transaction response
TranInfo:AcqRefData	O	1	200	AN	Use the AcqRefData value returned in the original Sale transaction response.

2.4 Transaction: Credit - Void Sale By Record

Use: To void a previously completed sale (payment) transaction in the current batch on a credit card (VISA, MasterCard, American Express, Discover, Carte Blanche, Diner's Club, JCB or Other) using the RecordNo value returned in the original Sale transaction. This transaction allows system to discard account number information upon completion of the original sale transaction.

XML Template: **Credit Void Sale By Record Number**

```
<?xml version="1.0"?>
<TStream>
  <Transaction>
    <IpAddress>999.999.999.999</IpAddress>
    <IpPort>99999</IpPort>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <OperatorID>OperatorID</OperatorID>
    <TranType>Credit</TranType>
    <CardType>CardType</CardType>
    <TranCode>VoidSaleByRecordNo</TranCode>
    <SecureDevice>ValidSecureDeviceID</SecureDevice>
    <ComPort>ComPort</ComPort>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <RefNo>RefNo</RefNo>
    <CardholderID>CardholderID</CardholderID>
    <LastFourCheck>LastFourCheck</LastFourCheck>
    <RecordNo>RecordNo</RecordNo>
    <Account>
      <AcctNo>SecureDevice</AcctNo>
    </Account>
    <Amount>
      <Purchase>Purchase</Purchase>
    </Amount>
    <SequenceNo>SequenceNo</SequenceNo>
    <TerminalName>TerminalName</TerminalName>
    <ShiftID>ShiftID</ShiftID>
    <Signature>Signature</Signature>
  </Transaction>
</TStream>
```

Element	Req	Min	Max	Type	Description
IpAddress	O	7	15	AN	IP address of server to use for this transaction. This address will override the addresses obtained via ServerIPConfig.
IpPort	O	1	5	N	IP port number on server to use for this transaction. If omitted, default port is 9000.
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	1	24	AN	For general use Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included. For reversal support with selected processors Use a unique POS workstation number (exactly 3 digits 000-999) for multi-workstation locations.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
TranType	Y	1	20	A	"Credit"
CardType	O	3	20	AN	"VISA", "M/C", "AMEX", "DCLB", "DCVR", "JCB", "OTHER"
TranCode	Y	1	40	A	"VoidSaleByRecordNo"
SecureDevice	Y	1	40	AN	Secure Device type. See Sections 1.1 and 1.3.3.3 of dsiPDCX Core Integration Specification for ValidSecureDeviceID values.
ComPort	Y	1	3	N	The true RS-232 serial port or virtual serial port for USB devices that use a virtual serial port driver. Port number to which SecureDevice is attached (0-255).
InvoiceNo	Y	1	16	AN	Invoice number - sequential receipt number, check number, or other unique transaction identifier.
RefNo	Y	1	16	AN	Use the RefNo value returned in the original Sale transaction response.
CardholderID	O	1	16	AN	When no cardholder authentication (signature or PIN entry) is unavailable from a self-serve terminal, use value "CAT". Otherwise, omit this tag.
LastFourCheck	O	4	4	N	The manual entry of only the last four digits of the cardholder account number (as printed on the front of the card) is verified against the magnetic Track 2 data read by the Secure Device. If a mismatch occurs, an error will be returned.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
RecordNo	Y	1	99	AN	The last RecordNo value returned in any of the following: the original credit Sale; PreAuth or Adjust by Record transaction.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of

					cardholder data, use value 'SecureDevice'
Amount:Purchase	Y	1	8	N	Original purchase price (with 2 place decimal – eg. 29.95)
SequenceNo	O	1	20	AN	For reversal support with selected processors Use '00000000' for first transaction in new installations. For all subsequent transactions, use the SequenceNo value returned in the previous transaction response.
TerminalName	O	1	20	AN	Terminal name
ShiftID	O	1	20	AN	Shift identification
Signature	O	1	2048	AN	Digitized signature

2.5 Transaction: Credit - Void Return

Use: To void a previously completed return (refund) transaction in the same batch on a credit card (VISA, MasterCard, American Express, Discover, Carte Blanche, Diner's Club, JCB or Other).

XML Template: Credit Void Return

```
<?xml version="1.0"?>
<TStream>
  <Transaction>
    <IpAddress>999.999.999.999</IpAddress>
    <IpPort>99999</IpPort>
    <TranDeviceID>TranDeviceID</TranDeviceID>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <OperatorID>OperatorID</OperatorID>
    <TranType>Credit</TranType>
    <CardType>CardType</CardType>
    <TranCode>VoidReturn</TranCode>
    <SecureDevice>ValidSecureDeviceID</SecureDevice>
    <ComPort>ComPort</ComPort>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <RefNo>RefNo</RefNo>
    <CardholderID>CardholderID</CardholderID>
    <LastFourCheck>LastFourCheck</LastFourCheck>
    <Account>
      <AcctNo>SecureDevice</AcctNo>
    </Account>
    <Amount>
      <Purchase>Purchase</Purchase>
    </Amount>
    <SequenceNo>SequenceNo</SequenceNo>
    <TerminalName>TerminalName</TerminalName>
    <ShiftID>ShiftID</ShiftID>
    <Signature>Signature</Signature>
  </Transaction>
</TStream>
```

Element	Req	Min	Max	Type	Description
IpAddress	O	7	15	AN	IP address of server to use for this transaction. This address will override the addresses obtained via ServerIPConfig. If an IPTranLT is the device to receive the command, this tag should be omitted.
IpPort	O	1	5	N	IP port number on server to use for this transaction. If omitted, default port is 9000. If an IPTranLT is the device to receive the command, this tag should be omitted.
TranDeviceID	O	1	24	AN	If an IPTranLT is the device to receive the command, this tag must be included. The TranDeviceID (DID) value is printed on a sticker on the bottom of every IPTranLT.
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	1	24	AN	For general use Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included. For reversal support with selected processors Use a unique POS workstation number (exactly 3 digits 000-999) for multi-workstation locations.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
TranType	Y	1	20	A	"Credit"
CardType	O	3	20	AN	"VISA", "M/C", "AMEX", "DCLB", "DCVR", "JCB", "OTHER"
TranCode	Y	1	40	A	"VoidReturn"
SecureDevice	Y	1	40	AN	Secure Device type. See Sections 1.1 and 1.3.3.3 of dsiPDCX Core Integration Specification for ValidSecureDeviceID values.
ComPort	Y	1	3	N	The true RS-232 serial port or virtual serial port for USB devices that use a virtual serial port driver. Port number to which SecureDevice is attached (0-255).
InvoiceNo	Y	1	16	AN	Invoice number - sequential receipt number, check number, or other unique transaction identifier.
RefNo	Y	1	16	AN	Use the RefNo data returned in the original Return transaction response
CardholderID	O	1	16	AN	When no cardholder authentication (signature or PIN entry) is unavailable from a self-serve terminal, use value "CAT". Otherwise, omit this tag.
LastFourCheck	O	4	4	N	The manual entry of only the last four digits of the cardholder account number (as printed on the front of the card) is verified against the magnetic Track 2 data read by the Secure Device. If a mismatch occurs, an error will be returned.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'

Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
Amount:Purchase	Y	1	8	N	Purchase price (with 2 place decimal – eg. 29.95)
SequenceNo	O	1	20	AN	For reversal support with selected processors Use '00000000' for first transaction in new installations. For all subsequent transactions, use the SequenceNo value returned in the previous transaction response.
TerminalName	O	1	20	AN	Terminal name
ShiftID	O	1	20	AN	Shift identification
Signature	O	1	2048	AN	Digitized signature

2.6 Transaction: Credit - Void Return By Record

Use: To void a previously completed return (refund) transaction in the current batch on a credit card (VISA, MasterCard, American Express, Discover, Carte Blanche, Diner's Club, JCB or Other) using the RecordNo value returned in the original Return transaction. This transaction allows system to discard account number information upon completion of the original return transaction.

XML Template: **Credit Void Return By Record Number**

```
<?xml version="1.0"?>
<TStream>
  <Transaction>
    <IpAddress>999.999.999.999</IpAddress>
    <IpPort>99999</IpPort>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <OperatorID>OperatorID</OperatorID>
    <TranType>Credit</TranType>
    <CardType>CardType</CardType>
    <TranCode>VoidReturnByRecordNo</TranCode>
    <SecureDevice>ValidSecureDeviceID</SecureDevice>
    <ComPort>ComPort</ComPort>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <RefNo>RefNo</RefNo>
    <CardholderID>CardholderID</CardholderID>
    <LastFourCheck>LastFourCheck</LastFourCheck>
    <RecordNo>RecordNo</RecordNo>
    <Account>
      <AcctNo>SecureDevice</AcctNo>
    </Account>
    <Amount>
      <Purchase>Purchase</Purchase>
    </Amount>
    <SequenceNo>SequenceNo</SequenceNo>
    <TerminalName>TerminalName</TerminalName>
    <ShiftID>ShiftID</ShiftID>
    <Signature>Signature</Signature>
  </Transaction>
</TStream>
```

Element	Req	Min	Max	Type	Description
IpAddress	O	7	15	AN	IP address of server to use for this transaction. This address will override the addresses obtained via ServerIPConfig.
IpPort	O	1	5	N	IP port number on server to use for this transaction. If omitted, default port is 9000.
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	1	24	AN	For general use Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included. For reversal support with selected processors Use a unique POS workstation number (exactly 3 digits 000-999) for multi-workstation locations.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
TranType	Y	1	20	A	"Credit"
CardType	O	3	20	AN	"VISA", "M/C", "AMEX", "DCLB", "DCVR", "JCB", "OTHER"
TranCode	Y	1	40	A	"VoidReturnByRecordNo"
SecureDevice	Y	1	40	AN	Secure Device type. See Sections 1.1 and 1.3.3.3 of dsiPDCX Core Integration Specification for ValidSecureDeviceID values.
ComPort	Y	1	3	N	The true RS-232 serial port or virtual serial port for USB devices that use a virtual serial port driver. Port number to which SecureDevice is attached (0-255).
InvoiceNo	Y	1	16	AN	Invoice number - sequential receipt number, check number, or other unique transaction identifier.
RefNo	Y	1	16	AN	Use the RefNo value returned in the original Return transaction response.
CardholderID	O	1	16	AN	When no cardholder authentication (signature or PIN entry) is unavailable from a self-serve terminal, use value "CAT". Otherwise, omit this tag.
LastFourCheck	O	4	4	N	The manual entry of only the last four digits of the cardholder account number (as printed on the front of the card) is verified against the magnetic Track 2 data read by the Secure Device. If a mismatch occurs, an error will be returned.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
RecordNo	Y	1	99	AN	The RecordNo value returned in the original credit return transaction.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice'

Amount:Purchase	Y	1	8	N	Original purchase price (with 2 place decimal – eg. 29.95)
SequenceNo	O	1	20	AN	For reversal support with selected processors Use '00000000' for first transaction in new installations. For all subsequent transactions, use the SequenceNo value returned in the previous transaction response.
TerminalName	O	1	20	AN	Terminal name
ShiftID	O	1	20	AN	Shift identification
Signature	O	1	2048	AN	Digitized signature

2.7 Transaction: Credit - AuthOnly

Use: To authorize only (without settlement) an amount on a credit card (VISA, MasterCard, American Express, Discover, Carte Blanche, Diner's Club, JCB or Other). AuthOnly transactions should be used when you only want to know the card account is open and has enough available credit line to process the request.

XML Template: **Credit AuthOnly**

```
<?xml version="1.0"?>
<TStream>
  <Transaction>
    <IpAddress>999.999.999.999</IpAddress>
    <IpPort>99999</IpPort>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <OperatorID>OperatorID</OperatorID>
    <TranType>Credit</TranType>
    <Duplicate>Override</Duplicate>
    <CardType>CardType</CardType>
    <TranCode>AuthOnly</TranCode>
    <SecureDevice>ValidSecureDeviceID</SecureDevice>
    <ComPort>ComPort</ComPort>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <RefNo>RefNo</RefNo>
    <CardholderID>CardholderID</CardholderID>
    <LastFourCheck>LastFourCheck</LastFourCheck>
    <Account>
      <AcctNo>SecureDevice</AcctNo>
    </Account>
    <Amount>
      <Purchase>Purchase</Purchase>
      <Authorize>Authorize</Authorize>
    </Amount>
    <AVS>
      <Address>Address</Address>
      <Zip>Zip</Zip>
    </AVS>
    <CVVData>CVVData</CVVData>
    <SequenceNo>SequenceNo</SequenceNo>
    <TerminalName>TerminalName</TerminalName>
    <ShiftID>ShiftID</ShiftID>
    <Signature>Signature</Signature>
  </Transaction>
</TStream>
```

Element	Req	Min	Max	Type	Description
IpAddress	O	7	15	AN	IP address of server to use for this transaction. This address will override the addresses obtained via ServerIPConfig.
IpPort	O	1	5	N	IP port number on server to use for this transaction. If omitted, default port is 9000.
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	1	24	AN	For general use Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included. For reversal support with selected processors Use a unique POS workstation number (exactly 3 digits 000-999) for multi-workstation locations.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
TranType	Y	1	20	A	"Credit"
Duplicate	O	1	20	AN	"Override" - To force approval of a transaction that was previously rejected as a duplicate by the processor.
CardType	O	3	20	AN	"VISA", "M/C", "AMEX", "DCLB", "DCVR", "JCB", "OTHER"
TranCode	Y	1	40	A	"AuthOnly"
SecureDevice	Y	1	40	AN	Secure Device type. See Sections 1.1 and 1.3.3.3 of dsiPDCX Core Integration Specification for ValidSecureDeviceID values.
ComPort	Y	1	3	N	The true RS-232 serial port or virtual serial port for USB devices that use a virtual serial port driver. Port number to which SecureDevice is attached (0-255).
InvoiceNo	Y	1	16	AN	Invoice number - sequential receipt number, check number, or other unique transaction identifier.
RefNo	Y	1	16	AN	Use the same data as InvoiceNo
CardholderID	O	1	16	AN	When no cardholder authentication (signature or PIN entry) is unavailable from a self-serve terminal, use value "CAT". Otherwise, omit this tag.
LastFourCheck	O	4	4	N	The manual entry of only the last four digits of the cardholder account number (as printed on the front of the card) is verified against the magnetic Track 2 data read by the Secure Device. If a mismatch occurs, an error will be returned.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for

					manual input of cardholder data, use value 'Prompt'
Amount:Purchase	Y	1	8	N	Purchase price (with 2 place decimal – eg. 29.95)
Amount:Authorize	Y	1	8	N	Amount to be authorized (with 2 place decimal – e.g. 29.95). For typical restaurant merchant, this is 20% more than the Purchase amount.
SequenceNo	O	1	20	AN	For reversal support with selected processors Use '00000000' for first transaction in new installations. For all subsequent transactions, use the SequenceNo value returned in the previous transaction response.
AVS:Address	O	1	8	N	For manually entered (hand-keyed) account numbers Address (building street) number. Supply this data whenever using a manually entered account number to ensure best transaction qualification.
AVS:Zip	O	1	9	N	For manually entered (hand-keyed) account numbers Zip code. Supply this data whenever using a manually entered account number to ensure best transaction qualification.
CVVData	O	3	4	N	For manually entered (hand-keyed) account numbers Three or four CVV card digits or "None" or "Illegible". Supply this data whenever using a manually entered account number to ensure best transaction qualification.
TerminalName	O	1	20	AN	Terminal name
ShiftID	O	1	20	AN	Shift identification
Signature	O	1	2048	AN	Digitized signature

2.8 Transaction: Credit - PreAuth

Use: To pre-authorize an estimated amount on a credit card (VISA, MasterCard, American Express, Discover, Carte Blanche, Diner's Club, JCB or Other). PreAuth transactions should be used when an exact charge amount isn't known but the transaction will be processed for payment later – such as in a restaurant when the check is presented awaiting the tip amount to be entered by the cardholder. The finalization of the transaction with a tip amount would be processed with a subsequent Credit - PreAuthCapture transaction.

Notes: A **PreAuth** transaction that is not closed with a **PreAuthCapture** transaction will not be settled (i.e. paid to the merchant account). It is important that a system enforces **PreAuthCapture** transactions for each **PreAuth** within a reasonable period of time (usually 48 hours).

Only one **PreAuthCapture** should be performed per **PreAuth** since each additional **PreAuthCapture** performed results in another settlement record. This will result in multiple charges against the cardholder account processed by the original **PreAuth** transaction.

If a gratuity amount must be changed, use an **Adjust** transaction with a gratuity tag after the **PreAuthCapture** transaction has been performed.

See Chapter 11.01 for the response format and fields for the **PreAuth** and **PreAuthCapture** capture transactions. Some fields returned in the **PreAuth** response must be kept and used in the subsequent **PreAuthCapture** request.

XML Template: **Credit PreAuth**

```
<?xml version="1.0"?>
<TStream>
  <Transaction>
    <IpAddress>999.999.999.999</IpAddress>
    <IpPort>99999</IpPort>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <OperatorID>OperatorID</OperatorID>
    <TranType>Credit</TranType>
    <Duplicate>Override</Duplicate>
    <CardType>CardType</CardType>
    <TranCode>PreAuth</TranCode>
    <SecureDevice>ValidSecureDeviceID</SecureDevice>
    <ComPort>ComPort</ComPort>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <RefNo>RefNo</RefNo>
    <CardholderID>CardholderID</CardholderID>
    <LastFourCheck>LastFourCheck</LastFourCheck>
    <PartialAuth>PartialAuth</PartialAuth>
    <Account>
      <AcctNo>SecureDevice</AcctNo>
    </Account>
  </Transaction>
</TStream>
```

```

</Account>
<Amount>
  <Purchase>Purchase</Purchase>
  <Authorize>Authorize</Authorize>
</Amount>
<AVS>
  <Address>Address</Address>
  <Zip>Zip</Zip>
</AVS>
<CVVData>CVVData</CVVData>
<SequenceNo>SequenceNo</SequenceNo>
<TerminalName>TerminalName</TerminalName>
<ShiftID>ShiftID</ShiftID>
<Signature>Signature</Signature>
</Transaction>
</TStream>

```

Element	Req	Min	Max	Type	Description
IpAddress	O	7	15	AN	IP address of server to use for this transaction. This address will override the addresses obtained via ServerIPConfig.
IpPort	O	1	5	N	IP port number on server to use for this transaction. If omitted, default port is 9000.
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	1	24	AN	For general use Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included. For reversal support with selected processors Use a unique POS workstation number (exactly 3 digits 000-999) for multi-workstation locations.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
TranType	Y	1	20	A	"Credit"
Duplicate	O	1	20	AN	"Override" - To force approval of a transaction that was previously rejected as a duplicate by the processor.
CardType	O	3	20	AN	"VISA", "M/C", "AMEX", "DCLB", "DCVR", "JCB", "OTHER"
TranCode	Y	1	40	A	"PreAuth"
SecureDevice	Y	1	40	AN	Secure Device type. See Sections 1.1 and 1.3.3.3 of dsiPDCX Core Integration Specification for ValidSecureDeviceID values.
ComPort	Y	1	3	N	The true RS-232 serial port or virtual serial port for USB devices that use a virtual serial port driver. Port number to which SecureDevice is attached (0-255).
InvoiceNo	Y	1	16	AN	Invoice number - sequential receipt number, check

					number, or other unique transaction identifier.
RefNo	Y	1	16	AN	Use the same data as InvoiceNo
CardholderID	O	1	16	AN	When no cardholder authentication (signature or PIN entry) is unavailable from a self-serve terminal, use value "CAT". Otherwise, omit this tag.
LastFourCheck	O	4	4	N	The manual entry of only the last four digits of the cardholder account number (as printed on the front of the card) is verified against the magnetic Track 2 data read by the Secure Device. If a mismatch occurs, an error will be returned.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
PartialAuth	O	1	16	AN	If value equals "Allow", then transaction may be authorized for an amount different than supplied in <Amount>:<Purchase> tag. See the <Authorize> tag in the response to determine how much was actually authorized. Note: The ability to support Partial Authoization will be mandated by the processors in the near future.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
Amount:Purchase	Y	1	8	N	Purchase price (with 2 place decimal – e.g. 29.95)
Amount:Authorize	Y	1	8	N	Amount to be authorized (with 2 place decimal – e.g. 29.95). For typical restaurant merchant, this is 20% more than the Purchase amount.
SequenceNo	O	1	20	AN	For reversal support with selected processors Use '00000000' for first transaction in new installations. For all subsequent transactions, use the SequenceNo value returned in the previous transaction response.
AVS:Address	O	1	8	N	For manually entered (hand-keyed) account numbers Address (building street) number. Supply this data whenever using a manually entered account number to ensure best transaction qualification.
AVS:Zip	O	1	9	N	For manually entered (hand-keyed) account numbers Zip code. Supply this data whenever using a manually entered account number to ensure best transaction qualification.
CVVData	O	3	4	N	For manually entered (hand-keyed) account numbers Three or four CVV card digits or "None" or "Illegible". Supply this data whenever using a manually entered account number to ensure best transaction qualification.
TerminalName	O	1	20	AN	Terminal name
ShiftID	O	1	20	AN	Shift identification
Signature	O	1	2048	AN	Digitized signature

Note:

When implementing support for the <PartialAuth> tag, the logic should inspect the amount returned in the <Authorize> tag of the response to determine how much was actually authorized. The ECR/POS tendering logic should be prepared to ask for additional tenders in the event that an authorization is approved for a lower amount than requested.

2.9 Transaction: Credit – VoiceAuth (Force)

Use: To process a transaction for which a voice authorization code was previously obtained. If the payment processing network is unavailable, the merchant can call a voice number for an authorization. While this voice authorization assures the merchant that the card is good for the amount requested, it does not record the transaction for settlement and payment to the merchant's bank account. The VoiceAuth transaction is used to place the previously voice authorized transaction in the current batch so that it will be settled and paid to the merchant.

XML Template: **Credit VoiceAuth**

```
<?xml version="1.0"?>
<TStream>
  <Transaction>
    <IpAddress>999.999.999.999</IpAddress>
    <IpPort>99999</IpPort>
    <TranDeviceID>TranDeviceID</TranDeviceID>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <OperatorID>OperatorID</OperatorID>
    <TranType>Credit</TranType>
    <Duplicate>Override</Duplicate>
    <CardType>CardType</CardType>
    <TranCode>VoiceAuth</TranCode>
    <SecureDevice>ValidSecureDeviceID</SecureDevice>
    <ComPort>ComPort</ComPort>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <RefNo>RefNo</RefNo>
    <CardholderID>CardholderID</CardholderID>
    <LastFourCheck>LastFourCheck</LastFourCheck>
    <Account>
      <AcctNo>SecureDevice</AcctNo>
    </Account>
    <Amount>
      <Purchase>Purchase</Purchase>
    </Amount>
    <SequenceNo>SequenceNo</SequenceNo>
    <TerminalName>TerminalName</TerminalName>
    <ShiftID>ShiftID</ShiftID>
    <Signature>Signature</Signature>
    <TranInfo>
      <AuthCode>AuthCode</AuthCode>
    </TranInfo>
  </Transaction>
</TStream>
```

Element	Req	Min	Max	Type	Description
IpAddress	O	7	15	AN	IP address of server to use for this transaction. This address will override the addresses obtained via ServerIPConfig. If an IPTranLT is the device to receive the command, this tag should be omitted.
IpPort	O	1	5	N	IP port number on server to use for this transaction. If omitted, default port is 9000. If an IPTranLT is the device to receive the command, this tag should be omitted.
TranDeviceID	O	1	24	AN	If an IPTranLT is the device to receive the command, this tag must be included. The TranDeviceID (DID) value is printed on a sticker on the bottom of every IPTranLT.
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	1	24	AN	For general use Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included. For reversal support with selected processors Use a unique POS workstation number (exactly 3 digits 000-999) for multi-workstation locations.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
TranType	Y	1	20	A	"Credit"
Duplicate	O	1	20	AN	"Override" - To force approval of a transaction that was previously rejected as a duplicate by the processor.
CardType	O	3	20	AN	"VISA", "M/C", "AMEX", "DCLB", "DCVR", "JCB", "OTHER"
TranCode	Y	1	40	A	"VoiceAuth"
SecureDevice	Y	1	40	AN	Secure Device type. See Sections 1.1 and 1.3.3.3 of dsiPDCX Core Integration Specification for ValidSecureDeviceID values.
ComPort	Y	1	3	N	The true RS-232 serial port or virtual serial port for USB devices that use a virtual serial port driver. Port number to which SecureDevice is attached (0-255).
InvoiceNo	Y	1	16	AN	Invoice number - sequential receipt number, check number, or other unique transaction identifier.
RefNo	Y	1	16	AN	Use the same data as InvoiceNo
CardholderID	O	1	16	AN	When no cardholder authentication (signature or PIN entry) is unavailable from a self-serve terminal, use value "CAT". Otherwise, omit this tag.
LastFourCheck	O	4	4	N	The manual entry of only the last four digits of the cardholder account number (as printed on the front of the card) is verified against the magnetic Track 2 data read by the Secure Device. If a mismatch occurs, an error will be returned.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice'

					To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
Amount:Purchase	Y	1	8	N	Purchase price (with 2 place decimal – e.g. 29.95)
SequenceNo	O	1	20	AN	For reversal support with selected processors Use '00000000' for first transaction in new installations. For all subsequent transactions, use the SequenceNo value returned in the previous transaction response.
TerminalName	O	1	20	AN	Terminal name
ShiftID	O	1	20	AN	Shift identification
Signature	O	1	2048	AN	Digitized signature
TranInfo:AuthCode	Y	1	16	AN	Use the AuthCode value obtained on the phone from the voice authorization center.

2.10 Transaction: Credit - PreAuth Capture

Use: To finalize a previous PreAuth transaction so that settlement can occur. This transaction is usually used in a restaurant environment to complete checks with the tip amount supplied on the draft by the cardholder. The tip amount is specified with Gratuity tags and the original check amount is specified with Purchase tags.

Notes: A **PreAuth** transaction that is not closed with a **PreAuthCapture** transaction will not be settled (i.e. paid to the merchant account). It is important that a system enforces **PreAuthCapture** transactions for each **PreAuth** within a reasonable period of time (usually 48 hours).

Only one **PreAuthCapture** should be performed per **PreAuth** since each additional **PreAuthCapture** performed results in another settlement record. This will result in multiple charges against the cardholder account processed by the original **PreAuth** transaction.

If a gratuity amount must be changed, use an **Adjust** transaction with a gratuity tag after the **PreAuthCapture** transaction has been performed.

Review the response format and fields for the **PreAuth** and **PreAuthCapture** capture transactions. Some fields returned in the **PreAuth** response must be kept and used in the subsequent **PreAuthCapture** request.

XML Template: **Credit PreAuth Capture**

```
<?xml version="1.0"?>
<TStream>
  <Transaction>
    <IpAddress>999.999.999.999</IpAddress>
    <IpPort>99999</IpPort>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <OperatorID>OperatorID</OperatorID>
    <TranType>Credit</TranType>
    <Duplicate>Override</Duplicate>
    <CardType>CardType</CardType>
    <TranCode>PreAuthCapture</TranCode>
    <SecureDevice>ValidSecureDeviceID</SecureDevice>
    <ComPort>ComPort</ComPort>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <RefNo>RefNo</RefNo>
    <CardholderID>CardholderID</CardholderID>
    <LastFourCheck>LastFourCheck</LastFourCheck>
    <Account>
      <AcctNo>SecureDevice</AcctNo>
    </Account>
    <Amount>
      <Purchase>Purchase</Purchase>
      <Authorize>Authorize</Authorize>
      <Gratuity>Gratuity</Gratuity >
    </Amount>
  </Transaction>
</TStream>
```

```

    <Tax>Tax</Tax >
  </Amount>
  <SequenceNo>SequenceNo</SequenceNo>
  <TerminalName>TerminalName</TerminalName>
  <ShiftID>ShiftID</ShiftID>
  <Signature>Signature</Signature>
  <TranInfo>
    <AuthCode>AuthCode</AuthCode>
    <AcqRefData>AcqRefData</AcqRefData>
    <CustomerCode>CustomerCode</CustomerCode>
  </TranInfo>
</Transaction>
</TStream>

```

Element	Req	Min	Max	Type	Description
IpAddress	O	7	15	AN	IP address of server to use for this transaction. This address will override the addresses obtained via ServerIPConfig.
IpPort	O	1	5	N	IP port number on server to use for this transaction. If omitted, default port is 9000.
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	1	24	AN	For general use Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included. For reversal support with selected processors Use a unique POS workstation number (exactly 3 digits 000-999) for multi-workstation locations.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
TranType	Y	1	20	A	"Credit"
Duplicate	O	1	20	AN	"Override" - To force approval of a transaction that was previously rejected as a duplicate by the processor.
CardType	O	3	20	AN	"VISA", "M/C", "AMEX", "DCLB", "DCVR", "JCB", "OTHER"
TranCode	Y	1	40	A	"PreAuthCapture"
SecureDevice	Y	1	40	AN	Secure Device type. See Sections 1.1 and 1.3.3.3 of dsiPDCX Core Integration Specification for ValidSecureDeviceID values.
ComPort	Y	1	3	N	The true RS-232 serial port or virtual serial port for USB devices that use a virtual serial port driver. Port number to which SecureDevice is attached (0-255).
InvoiceNo	Y	1	16	AN	Invoice number - sequential receipt number, check number, or other unique transaction identifier.
RefNo	Y	1	16	AN	Use the RefNo data returned in the original PreAuth transaction response

CardholderID	O	1	16	AN	When no cardholder authentication (signature or PIN entry) is unavailable from a self-serve terminal, use value "CAT". Otherwise, omit this tag.
LastFourCheck	O	4	4	N	The manual entry of only the last four digits of the cardholder account number (as printed on the front of the card) is verified against the magnetic Track 2 data read by the Secure Device. If a mismatch occurs, an error will be returned.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
Amount:Purchase	Y	1	8	N	Purchase price (with 2 place decimal – e.g. 29.95)
Amount:Authorize	Y	1	8	N	Authorize amount (with 2 place decimal – e.g. 29.95) – should be the same Authorize amount used in the PreAuth transaction
Amount:Gratuity	O	1	8	N	Tip (gratuity) amount (with 2 place decimal – e.g. 5.00)
Amount:Tax	Y	1	8	N	For Purchase Card Level II transactions – Sales Tax amount (with 2 place decimal – e.g. 29.95)
SequenceNo	O	1	20	AN	For reversal support with selected processors Use '00000000' for first transaction in new installations. For all subsequent transactions, use the SequenceNo value returned in the previous transaction response.
TerminalName	O	1	20	AN	Terminal name
ShiftID	O	1	20	AN	Shift identification
Signature	O	1	2048	AN	Digitized signature
TranInfo:AuthCode	Y	1	16	AN	Use the AuthCode value returned in the original PreAuth transaction response.
TranInfo:AcqRefData	Y	1	200	AN	Use the AcqRefData value returned in the original PreAuth transaction response.
TranInfo:CustomerCode	O	1	17	AN	For Purchase Card Level II transactions – customer's identifying information; such as PO number.

2.11 Transaction: Credit - Adjust

Use: To adjust the gratuity amount on a previously processed PreAuthCapture transaction. This transaction is used to alter the Gratuity amount in a previously processed PreAuthCapture transaction.

XML Template: Credit Adjust

```
<?xml version="1.0"?>
<TStream>
  <Transaction>
    <IpAddress>999.999.999.999</IpAddress>
    <IpPort>99999</IpPort>
    <TranDeviceID>TranDeviceID</TranDeviceID>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <OperatorID>OperatorID</OperatorID>
    <TranType>Credit</TranType>
    <Duplicate>Override</Duplicate>
    <CardType>CardType</CardType>
    <TranCode>Adjust</TranCode>
    <SecureDevice>ValidSecureDeviceID</SecureDevice>
    <ComPort>ComPort</ComPort>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <RefNo>RefNo</RefNo>
    <CardholderID>CardholderID</CardholderID>
    <LastFourCheck>LastFourCheck</LastFourCheck>
    <Account>
      <AcctNo>SecureDevice</AcctNo>
    </Account>
    <Amount>
      <Purchase>Purchase</Purchase>
      <Gratuity>Gratuity</Gratuity>
    </Amount>
    <SequenceNo>SequenceNo</SequenceNo>
    <TerminalName>TerminalName</TerminalName>
    <ShiftID>ShiftID</ShiftID>
    <Signature>Signature</Signature>
    <TranInfo>
      <AuthCode>AuthCode</AuthCode>
      <AcqRefData>AcqRefData</AcqRefData>
    </TranInfo>
  </Transaction>
</TStream>
```

Element	Req	Min	Max	Type	Description
IpAddress	O	7	15	AN	IP address of server to use for this transaction. This address will override the addresses obtained via ServerIPConfig. If an IPTranLT is the device to receive the command, this tag should be omitted.
IpPort	O	1	5	N	IP port number on server to use for this transaction. If omitted, default port is 9000. If an IPTranLT is the device to receive the command, this tag should be omitted.
TranDeviceID	O	1	24	AN	If an IPTranLT is the device to receive the command, this tag must be included. The TranDeviceID (DID) value is printed on a sticker on the bottom of every IPTranLT.
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	1	24	AN	For general use Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included. For reversal support with selected processors Use a unique POS workstation number (exactly 3 digits 000-999) for multi-workstation locations.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
TranType	Y	1	20	A	"Credit"
Duplicate	O	1	20	AN	"Override" - To force approval of a transaction that was previously rejected as a duplicate by the processor.
CardType	O	3	20	AN	"VISA", "M/C", "AMEX", "DCLB", "DCVR", "JCB", "OTHER"
TranCode	Y	1	40	A	"Adjust"
SecureDevice	Y	1	40	AN	Secure Device type. See Sections 1.1 and 1.3.3.3 of dsiPDCX Core Integration Specification for ValidSecureDeviceID values.
ComPort	Y	1	3	N	The true RS-232 serial port or virtual serial port for USB devices that use a virtual serial port driver. Port number to which SecureDevice is attached (0-255).
InvoiceNo	Y	1	16	AN	Invoice number - sequential receipt number, check number, or other unique transaction identifier.
RefNo	Y	1	16	AN	Use the RefNo data returned in the original PreAuthCapture transaction response
CardholderID	O	1	16	AN	When no cardholder authentication (signature or PIN entry) is unavailable from a self-serve terminal, use value "CAT". Otherwise, omit this tag.
LastFourCheck	O	4	4	N	The manual entry of only the last four digits of the cardholder account number (as printed on the front of the card) is verified against the magnetic Track 2 data read by the Secure Device. If a mismatch occurs, an error will be returned.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice'

					To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
Amount:Purchase	Y	1	8	N	Purchase price from original PreAuthCapture transaction with 2-place decimal – e.g. 29.95)
Amount:Gratuity	Y	1	8	N	New Gratuity amount to substitute in previously processed PreAuthCapture transaction with 2-place decimal – e.g. 5.00)
SequenceNo	O	1	20	AN	For reversal support with selected processors Use '00000000' for first transaction in new installations. For all subsequent transactions, use the SequenceNo value returned in the previous transaction response.
TerminalName	O	1	20	AN	Terminal name
ShiftID	O	1	20	AN	Shift identification
Signature	O	1	2048	AN	Digitized signature
TranInfo:AuthCode	Y	1	16	AN	Use the AuthCode value returned in the original PreAuth transaction response.
TranInfo:AcqRefData	Y	1	200	AN	Use the AcqRefData value returned in the original PreAuth transaction response.

2.12 Transaction: Credit – Adjust By Record

Use: To adjust a previously processed Sale, PreAuth or Adjust by Record transaction. This transaction is used to alter the Gratuity amount in a previously processed PreAuthCapture transaction. This transaction allows system to discard account number information upon completion of the original Sale or PreAuth transaction.

XML Template: **Credit Adjust By Record Number**

```
<?xml version="1.0"?>
<TStream>
  <Transaction>
    <IpAddress>999.999.999.999</IpAddress>
    <IpPort>99999</IpPort>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <OperatorID>OperatorID</OperatorID>
    <TranType>Credit</TranType>
    <Duplicate>Override</Duplicate>
    <CardType>CardType</CardType>
    <TranCode>AdjustByRecordNo</TranCode>
    <SecureDevice>ValidSecureDeviceID</SecureDevice>
    <ComPort>ComPort</ComPort>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <RefNo>RefNo</RefNo>
    <CardholderID>CardholderID</CardholderID>
    <LastFourCheck>LastFourCheck</LastFourCheck>
    <RecordNo>RecordNo</RecordNo>
    <Account>
      <AcctNo>SecureDevice</AcctNo>
    </Account>
    <Amount>
      <Purchase>Purchase</Purchase>
      <Gratuity>Gratuity</Gratuity>
    </Amount>
    <SequenceNo>SequenceNo</SequenceNo>
    <TerminalName>TerminalName</TerminalName>
    <ShiftID>ShiftID</ShiftID>
    <Signature>Signature</Signature>
  </Transaction>
</TStream>
```

Element	Req	Min	Max	Type	Description
IpAddress	O	7	15	AN	IP address of server to use for this transaction. This address will override the addresses obtained via ServerIPConfig.
IpPort	O	1	5	N	IP port number on server to use for this transaction. If omitted, default port is 9000.
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	1	24	AN	For general use Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included. For reversal support with selected processors Use a unique POS workstation number (exactly 3 digits 000-999) for multi-workstation locations.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
TranType	Y	1	20	A	"Credit"
Duplicate	O	1	20	AN	"Override" - To force approval of a transaction that was previously rejected as a duplicate by the processor.
CardType	O	3	20	AN	"VISA", "M/C", "AMEX", "DCLB", "DCVR", "JCB", "OTHER"
TranCode	Y	1	40	A	"AdjustByRecordNo"
SecureDevice	Y	1	40	AN	Secure Device type. See Sections 1.1 and 1.3.3.3 of dsiPDCX Core Integration Specification for ValidSecureDeviceID values.
ComPort	Y	1	3	N	The true RS-232 serial port or virtual serial port for USB devices that use a virtual serial port driver. Port number to which SecureDevice is attached (0-255).
InvoiceNo	Y	1	16	AN	Invoice number - sequential receipt number, check number, or other unique transaction identifier.
RefNo	Y	1	16	AN	Use the RefNo data returned in the original PreAuthCapture transaction response
CardholderID	O	1	16	AN	When no cardholder authentication (signature or PIN entry) is unavailable from a self-serve terminal, use value "CAT". Otherwise, omit this tag.
LastFourCheck	O	4	4	N	The manual entry of only the last four digits of the cardholder account number (as printed on the front of the card) is verified against the magnetic Track 2 data read by the Secure Device. If a mismatch occurs, an error will be returned.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
RecordNo	Y	1	99	AN	The last RecordNo value returned in any of the following: the original credit Sale; PreAuth or Adjust by Record

					transaction.
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice'
Amount:Purchase	Y	1	8	N	Original purchase price from PreAuthCapture transaction with 2-place decimal – e.g. 29.95)
Amount:Gratuity	Y	1	8	N	New Gratuity amount to substitute in previously processed PreAuthCapture transaction with 2-place decimal – e.g. 5.00)
SequenceNo	O	1	20	AN	For reversal support with selected processors Use '00000000' for first transaction in new installations. For all subsequent transactions, use the SequenceNo value returned in the previous transaction response.
TerminalName	O	1	20	AN	Terminal name
ShiftID	O	1	20	AN	Shift identification
Signature	O	1	2048	AN	Digitized signature

2.13 Transaction: Credit – Balance Inquiry

Use: To inquire the available balance on PrePaid or FSA (Flexibale Spending Account) credit cards.

XML Template: Credit Balance Inquiry

```
<?xml version="1.0"?>
<TStream>
  <Transaction>
    <IpAddress>999.999.999.999</IpAddress>
    <IpPort>99999</IpPort>
    <TranDeviceID>TranDeviceID</TranDeviceID>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <OperatorID>OperatorID</OperatorID>
    <TranType>Credit</TranType>
    <Duplicate>Override</Duplicate>
    <CardType>CardType</CardType>
    <TranCode>Balance</TranCode>
    <SecureDevice>ValidSecureDeviceID</SecureDevice>
    <ComPort>ComPort</ComPort>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <RefNo>RefNo</RefNo>
    <CardholderID>CardholderID</CardholderID>
    <LastFourCheck>LastFourCheck</LastFourCheck>
    <PartialAuth>Allow</PartialAuth>
    <Account>
      <AcctNo>SecureDevice</AcctNo>
    </Account>
    <Amount>
      <Purchase>Purchase</Purchase>
      <Authorize>Authorize</Authorize>
    </Amount>
    <AVS>
      <Address>Address</Address>
      <Zip>Zip</Zip>
    </AVS>
    <CVVData>CVVData</CVVData>
    <SequenceNo>SequenceNo</SequenceNo>
    <TerminalName>TerminalName</TerminalName>
    <ShiftID>ShiftID</ShiftID>
    <Signature>Signature</Signature>
  </Transaction>
</TStream>
```

Element	Req	Min	Max	Type	Description
IpAddress	O	7	15	AN	IP address of server to use for this transaction. This address will override the addresses obtained via ServerIPConfig. If an IPTranLT is the device to receive the command, this tag should be omitted.
IpPort	O	1	5	N	IP port number on server to use for this transaction. If omitted, default port is 9000. If an IPTranLT is the device to receive the command, this tag should be omitted.
TranDeviceID	O	1	24	AN	If an IPTranLT is the device to receive the command, this tag must be included. The TranDeviceID (DID) value is printed on a sticker on the bottom of every IPTranLT.
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	1	24	AN	For general use Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included. For reversal support with selected processors Use a unique POS workstation number (exactly 3 digits 000-999) for multi-workstation locations.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
TranType	Y	1	20	A	"Credit"
Duplicate	O	1	20	AN	"Override" - To force approval of a transaction that was previously rejected as a duplicate by the processor.
CardType	O	3	20	AN	"VISA", "M/C", "AMEX", "DCLB", "DCVR", "JCB", "OTHER"
TranCode	Y	1	40	A	"Balance"
SecureDevice	Y	1	40	AN	Secure Device type. See Sections 1.1 and 1.3.3.3 of dsiPDCX Core Integration Specification for ValidSecureDeviceID values.
ComPort	Y	1	3	N	The true RS-232 serial port or virtual serial port for USB devices that use a virtual serial port driver. Port number to which SecureDevice is attached (0-255).
InvoiceNo	Y	1	16	AN	Invoice number – sequential receipt number, check number, or other unique transaction identifier.
RefNo	Y	1	16	AN	Use the same data as InvoiceNo
CardholderID	O	1	16	AN	When no cardholder authentication (signature or PIN entry) is unavailable from a self-serve terminal, use value "CAT". Otherwise, omit this tag.
LastFourCheck	O	4	4	N	The manual entry of only the last four digits of the cardholder account number (as printed on the front of the card) is verified against the magnetic Track 2 data read by the Secure Device. If a mismatch occurs, an error will be returned.
PartialAuth	O	1	16	AN	"Allow"
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of

					cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
Amount:Purchase	Y	1	8	N	"0.00"
Amount:Authorize	O	1	8	N	Authorize amount (with 2 place decimal – eg. 29.95)
SequenceNo	O	1	20	AN	For reversal support with selected processors Use '00000000' for first transaction in new installations. For all subsequent transactions, use the SequenceNo value returned in the previous transaction response.
AVS:Address	O	1	8	N	For manually entered (hand-keyed) account numbers Address (building street) number. Supply this data whenever using a manually entered account number to ensure best transaction qualification.
AVS:Zip	O	1	9	N	For manually entered (hand-keyed) account numbers Zip code. Supply this data whenever using a manually entered account number to ensure best transaction qualification.
CVVData	O	3	4	N	For manually entered (hand-keyed) account numbers Three or four CVV card digits or "None" or "Illegible". Supply this data whenever using a manually entered account number to ensure best transaction qualification.
TerminalName	O	1	20	AN	Terminal name
ShiftID	O	1	20	AN	Shift identification
Signature	O	1	2048	AN	Digitized signature
TranInfo:CustomerCode	O	1	17	AN	For Purchase Card Level II transactions – customer's identifying information; such as PO number.

2.14 Transaction: Credit – Zero Auth (Card Check)

Use: To inquire whether a credit card is valid for processing without charging any amount.

XML Template: Credit Zero Auth

```
<?xml version="1.0"?>
<TStream>
  <Transaction>
    <IpAddress>999.999.999.999</IpAddress>
    <IpPort>99999</IpPort>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <OperatorID>OperatorID</OperatorID>
    <TranType>Credit</TranType>
    <Duplicate>Override</Duplicate>
    <CardType>CardType</CardType>
    <TranCode>ZeroAuth</TranCode>
    <SecureDevice>ValidSecureDeviceID</SecureDevice>
    <ComPort>ComPort</ComPort>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <RefNo>RefNo</RefNo>
    <CardholderID>CardholderID</CardholderID>
    <LastFourCheck>LastFourCheck</LastFourCheck>
    <PartialAuth>Allow</PartialAuth>
    <Account>
      <AcctNo>SecureDevice</AcctNo>
    </Account>
    <Amount>
      <Purchase>Purchase</Purchase>
      <Authorize>Authorize</Authorize>
    </Amount>
    <AVS>
      <Address>Address</Address>
      <Zip>Zip</Zip>
    </AVS>
    <CVVData>CVVData</CVVData>
    <SequenceNo>SequenceNo</SequenceNo>
    <TerminalName>TerminalName</TerminalName>
    <ShiftID>ShiftID</ShiftID>
    <Signature>Signature</Signature>
  </Transaction>
</TStream>
```

Element	Req	Min	Max	Type	Description
IpAddress	O	7	15	AN	IP address of server to use for this transaction. This address will override the addresses obtained via ServerIPConfig.
IpPort	O	1	5	N	IP port number on server to use for this transaction. If omitted, default port is 9000.
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	1	24	AN	For general use Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included. For reversal support with selected processors Use a unique POS workstation number (exactly 3 digits 000-999) for multi-workstation locations.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
TranType	Y	1	20	A	"Credit"
Duplicate	O	1	20	AN	"Override" - To force approval of a transaction that was previously rejected as a duplicate by the processor.
CardType	O	3	20	AN	"VISA", "M/C", "AMEX", "DCLB", "DCVR", "JCB", "OTHER"
TranCode	Y	1	40	A	"ZeroAuth"
SecureDevice	Y	1	40	AN	Secure Device type. See Sections 1.1 and 1.3.3.3 of dsiPDCX Core Integration Specification for ValidSecureDeviceID values.
ComPort	Y	1	3	N	The true RS-232 serial port or virtual serial port for USB devices that use a virtual serial port driver. Port number to which SecureDevice is attached (0-255).
InvoiceNo	Y	1	16	AN	Invoice number – sequential receipt number, check number, or other unique transaction identifier.
RefNo	Y	1	16	AN	Use the same data as InvoiceNo
CardholderID	O	1	16	AN	When no cardholder authentication (signature or PIN entry) is unavailable from a self-serve terminal, use value "CAT". Otherwise, omit this tag.
LastFourCheck	O	4	4	N	The manual entry of only the last four digits of the cardholder account number (as printed on the front of the card) is verified against the magnetic Track 2 data read by the Secure Device. If a mismatch occurs, an error will be returned.
PartialAuth	O	1	16	AN	"Allow"
Account:AcctNo	Y	1	19	AN	To use the attached SecureDevice for MSR input of cardholder data, use value 'SecureDevice' To use the PC keyboard or attached SecureDevice for manual input of cardholder data, use value 'Prompt'
Amount:Purchase	Y	1	8	N	Purchase price of '0.00'

Amount:Authorize	O	1	8	N	Authorize amount (with 2 place decimal – eg. 29.95)
SequenceNo	O	1	20	AN	For reversal support with selected processors Use '00000000' for first transaction in new installations. For all subsequent transactions, use the SequenceNo value returned in the previous transaction response.
AVS:Address	O	1	8	N	For manually entered (hand-keyed) account numbers Address (building street) number. Supply this data whenever using a manually entered account number to ensure best transaction qualification.
AVS:Zip	O	1	9	N	For manually entered (hand-keyed) account numbers Zip code. Supply this data whenever using a manually entered account number to ensure best transaction qualification.
CVVData	O	3	4	N	For manually entered (hand-keyed) account numbers Three or four CVV card digits or "None" or "Illegible". Supply this data whenever using a manually entered account number to ensure best transaction qualification.
TerminalName	O	1	20	AN	Terminal name
ShiftID	O	1	20	AN	Shift identification
Signature	O	1	2048	AN	Digitized signature
TranInfo:CustomerCode	O	1	17	AN	For Purchase Card Level II transactions – customer's identifying information; such as PO number.

2.15 XML Transaction Response

```
<?xml version="1.0"?>
<RStream>
  <CmdResponse>
    <ResponseOrigin>ResponseOrigin</ResponseOrigin>
    <DSIXReturnCode>DSIXReturnCode</DSIXReturnCode>
    <CmdStatus>CmdStatus</CmdStatus>
    <TextResponse>TextResponse</TextResponse>
    <UserTraceData>UserTraceData</UserTraceData>
    <SequenceNo>SequenceNo</SequenceNo>
  </CmdResponse>
  <TranResponse>
    <MerchantID>MerchantID</MerchantID>
    <TerminalID>TerminalID</TerminalID>
    <AcctNo>AcctNo</AcctNo>
    <ExpDate>ExpDate</ExpDate>
    <CardType>CardType</CardType>
    <TranCode>TranCode</TranCode>
    <AuthCode>AuthCode</AuthCode>
    <AVSResult>AVSResult</AVSResult>
    <CVVResult>CVVResult</CVVResult>
    <VoucherNo>VoucherNo</VoucherNo>
    <CaptureStatus>CaptureStatus</CaptureStatus>
    <RefNo>RefNo</RefNo>
    <InvoiceNo>InvoiceNo</InvoiceNo>
    <OperatorID>OperatorID</OperatorID>
    <Memo>Memo</Memo>
    <Amount>
      <Purchase>Purchase</Purchase>
      <Authorize>Authorize</Authorize>
      <Gratuity>Gratuity</Gratuity>
      <CashBack>CashBack</CashBack>
      <Balance>Balance</Balance>
    </Amount>
    <AcqRefData>AcqRefData</AcqRefData>
    <RecordNo>RecordNo</RecordNo>
  </TranResponse>
  <IssueCurrency>IssueCurrency</IssueCurrency>
    <IssueCurrencyPreviousBalance>IssueCurrencyPreviousBalance</IssueCurrencyPreviousBalance>
    <IssueCurrencyEndingBalance>IssueCurrencyEndingBalance</IssueCurrencyEndingBalance>
    <ExchangeRate>ExchangeRate</ExchangeRate>
    <PrePaidExp>PrePaidExp</PrePaidExp>
  </IssueCurrency>
</RStream>
```

Element	Return	Min	Max	Type	Description
ResponseOrigin	Y	1	10	A	Indicates the source of the response: "Client" = generated by DSIClientX control "Server" = generated by Datacap server "Processor" = generated by payment processor
DSIXReturnCode	Y	6	6	N	Six digit return code which identifies the error type. See Section 3 on error codes for possible values
CmdStatus	Y	1	10	A	Indicates the outcome of the command: "Approved" = transaction approved by payment processor "Declined" = transaction declined by payment processor "Success" = command completed successfully "Error" = error processing command. Check DSIXReturnCode and TextResponse for additional info on error
TextResponse	Y	1	40	AN	For Successful responses, this field can contain an optional message from the server or processor. For other response codes, see Section 3 on Error Codes for values.
UserTraceData	Y	0	40	AN	Echo of data supplied by the user system in the request; for use by the user system for internal tracking. May be null if no user system data was supplied in the request
SequenceNo	O	1	20	N	Transaction sequence number (included in Canadian Debit transaction responses)
MerchantID	Y	1	24	AN	Merchant identification assigned by processor.
TerminalID	O	0	24	AN	Terminal ID data must be supplied in this tag only if provided by the processor or merchant service provider; otherwise this tag should not be included.
AcctNo	Y	1	19	N	Cardholder Account number.
ExpDate	Y	4	4	N	Expiration date as MMY
CardType	O	3	20	AN	"VISA" "M/C" "AMEX" "DCLB" "DCVR" "JCB" "DEBIT" "OTHER" "Foodstamp" "Cash" "PrePaid"
TranCode	Y	1	40	A	"Sale" "Return" "VoidSale" "VoidReturn" "AuthOnly" "PreAuth" "VoiceAuth" "PreAuthCapture" "Voucher" "Issue" "Balance"

					"Adjust"
AuthCode	O	1	16	AN	The authorization code returned by the processor for the approved transaction. The AuthCode value should be saved since it is required for VoidSale, Adjust, VoiceAuth and PreAuthCapture transactions.
AVSResult	O	0	40	AN	The result of an AVS transaction returned by the processor.
CVVResult	O	0	40	AN	The result of an AVS transaction returned by the processor.
VoucherNo	O	0	40	AN	The of an EBT transaction returned by the processor.
CaptureStatus	O	1	16	AN	"Captured" "NotCaptured"
RefNo	O	1	16	AN	A reference returned by the processor. The RefNo value returned by the processor should be saved since it is required for subsequent VoidSale, Adjust, VoiceAuth and PreAuthCapture transactions.
InvoiceNo	Y	1	16	AN	Use the InvoiceNo value supplied in the original request.
OperatorID	Y	1	10	N	Operator (clerk, server, etc.) associated with the Transaction.
Memo	O	0	40	AN	Echo of data supplied by the user system in the request; for use by the user system for internal tracking.
Amount:Purchase	Y	1	8	N	Purchase price (with 2 place decimal)
Amount:Authorize	O	1	8	N	Authorized amount (with 2 place decimal)
Amount:Gratuity	O	1	8	N	Gratuity amount (with 2 place decimal)
Amount:CashBack	O	1	8	N	CashBack amount (with 2 place decimal)
Amount:Balance	O	1	8	N	Balance amount (with 2 place decimal) for EBT or PrePaid transactions.
AcqRefData	O	1	200	AN	Acquirer Reference returned by processor on PreAuth Transaction requests – will be null for other TranCodes. The AcqRefData value returned by the processor should be saved since it is required for subsequent PreAuthCapture transactions.
RecordNo	O	1	99	AN	Indicates record identifier in current batch. The RecordNo value can be saved and used as a token to process subsequent VoidSaleByRecordNo, VoidReturnByRecordNo and AdjustByRecordNo transactions without using account number data.
IssueCurrency	O	3	3	AN	Indicates the currency type in which the prepaid card account was originally issued. Supported values are: "CAN" - Canadian dollars "USD" - U.S. dollars Note: If this tag is returned on a prepaid transaction, it must be printed on the receipt with the legend "Currency" and the returned value.
IssueCurrencyPreviousBalance	O	1	8	N	Balance amount in issue currency (with 2 place decimal) at the start of the transaction. Note: If this tag is returned on a prepaid transaction, it must be printed on the receipt under the Currency line with the legend "Previous Balance" and the returned value.
IssueCurrencyEndingBalance	O	1	8	N	Balance amount in issue currency (with 2 place decimal) at the completion of the transaction.

					Note: If this tag is returned on a prepaid transaction, it must be printed on the receipt under the Previous Balance line with the legend "Ending Balance" and the returned value.
ExchangeRate	O	1	8	N	Exchange rate used to calculate from local to issued currency. Note: If this tag is returned on a prepaid transaction, it may be optionally printed under the Ending Balance line on the receipt with the legend "Exchange Rate" and the returned value.
PrePaidExp	O	1	8	AN	PrePaid card expiration date OR Trace Number. Date format: 12/31/04 or 2004-12-31 Trace Number Format: 99999999

2.16 dsiPDCX Compatible Servers

2.17 Credit for NETePay Compatible Servers

The following chart indicates which transactions are supported by the available NETePay servers.

CREDIT Transactions	ADS	MPS	Nova Host	Nova Term	Concord EFS	Fifth Third	VITAL TSYS	VITAL TSYS	CardNet FDMS	Sterling	RBS Lynk	Heart land
	Host	Host	Host	Term	Host	Host	Term	Host	Term	Host	Term	Term
Sale	X	X	X	X	X	X	X	X	X	X	X	X
Return	X	X	X	X	X	X	X	X	X	X	X	X
Void Sale	X	X	X	X	X	X	X	X	X	X	X	X
Void Sale by Record				X		X	X		X		X	X
Void Return	X	X	X	X	X	X	X	X	X	X	X	X
Void Return by Record				X		X	X		X		X	X
AuthOnly	X	X	X	X	X	X	X	X	X	X	X	X
PreAuth		X		X	X	X	X		X	X	X	X
VoiceAuth	X	X	X	X	X	X	X	X	X	X	X	X
PreAuth Capture		X		X	X	X	X		X	X	X	X
Adjust		X		X		X	X	X	X		X	X
Adjust by Record				X		X	X		X		X	X
Balance		X	X						X			
Zero Auth (Verify Card)									X		X	

CREDIT Transactions	GPS Term US	GPS Host US	Paymentech Host	Paymentech Term	FDMS Nashville
	Sale	X	X	X	X
Return	X	X	X	X	X
Void Sale	X	X	X	X	X
Void Sale by Record	X			X	X
Void Return	X	X	X	X	X
Void Return br Record	X			X	X
AuthOnly	X	X	X	X	X
PreAuth	X	X	X	X	X
VoiceAuth	X	X	X	X	X
PreAuth Capture	X	X	X	X	X
Adjust	X	X		X	X
Adjust by Record	X			X	X
Balance			X		X
Zero Auth (Verify Card)			X		X