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PROLIFIC GATEWAY DEVELOPMENT MANUAL (SDK)

Congratulations on the selection of the Prolific Gateway Software Development Kit Manual Guide (SDK), the most advanced solution in the industry for processing credit cards, debit cards, gift/loyalty cards, and checks. This software provides a fast, easy, reliable way to authorize credit card, ATM/debit card, gift/loyalty cards, and check transactions from your PC or integration point of sale solution. The SDK prepares you with the detailed information that you will need to install, configure and test your payment processing application.

Your opinion is important to us. If you have any suggestions feel free to email us at support@prolificbusinesssolutions.com.

Thank you for choosing Prolific Business Solutions!

Prolific Integration Links:

Test Link
https://test.prolificpaymentsolutions.com/admin/ws/ProlificPS.wsdl

Production Link
https://gateway.prolificpaymentsolutions.com/admin/ws/ProlificPS.wsdl

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Prolific Business Solutions
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Suite 230
Austin, Texas 78728

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OVERVIEW

TESTING

Test accounts may be requested for access to the Prolific Gateway Networks test account Gateway instance. To request this account, please send your email request to support@prolificbusinesssolutions.com. Please include the following information with your test account request: company name, inidividual name, phone number, email address associated with the test account, and payment processor information that you would like to test. An email response will be sent with valid test information.

Testing can be performed with the following test cards:

Card Type	Number
MasterCard	5439750001500347
Visa	4005550000000019
Discover	60011111111111117
Diners	36999999999999
AMEX	374255312721002

LISTING OF PROLIFIC GATEWAY WEB SERVICES

Reporting Web Services

- **GetCardTrx** – Retrieves card transaction details for a merchant

- **GetCardTrxSummary** – Retrieves card transaction summary for a merchant

- **GetCheckTrx** – Retrieves check transaction details for a merchant

- **GetCardType** – Returns the name of the card issuer; such as Visa, MasterCard, AMEX, etc.

- **GetInfo** – Retrieves information from the web service

- **GetOpenBatchSummary** – Retrieves payment type transaction summary of the current open batch for a merchant

Transaction Processing Web Services

- **ProcessCheck** – Processes check transactions for a merchant

- **ProcessCreditCard** – Processes credit card transactions for a merchant

- **ProcessDebitCard** – Processes debit card transactions for a merchant

- **ProcessEBTCard** – Processes EBT card transactions for a merchant

- **ProcessGiftCard** – Processes gift card transactions for a merchant

- **ProcessSignature** – Sends a signature to apply to a receipt transaction

- **ProcessLoyaltyCard** – Process Loyalty card transactions to a merchant

Card Validation Web Services

- **IsCommercialCard** – Returns (T/F) if the card is a known commercial card

- **ValidCard** – Validates the credit card by checking the card length based on the card type, performing a mod 10 checksum, and validating the expiration date

- **ValidCardLength** – Validates the credit card length

- **VaildExpDate** – Validates the expiration date of the credit card

- **ValidMod10** – Validates the credit card by performing a mod 10 checksum on the card number; returns (T/F)

- **GetCardType -** This Web service operation returns the name of the card issuer

- **GetNetworkID- ** This web service allows for returning the debit network ID if the debit card number matches any of these network's bin ranges

Recurring Billing Web Services

- **AddRecurringCreditCard** -Allows customer information to be programmatically stored through web services for recurring billing.

- **AddRecurringCheck** - Allows check information to be programmatically stored through web services for recurring billing.

- **ManageCheckInfo** - Allows for programmatic management of existing check information for recurring billing.

- **ManageCreditCardInfo** - Allows for programmatic management of credit card information for customers specific to recurring billing.

- **ManageContract** - Allows for managing exisiting contracts for updates and modifications.

- **ManageContractAddDaysToNextBillDt** – Allows for modification of next billing date for recurring billing contracts

- **ManageCustomer –** Allows for management of existing customers in the recurring billing web service.

- ***ProcessCreditCard** -Allows for processing credit card transactions in recurring billing.

- ***ProcessCheck**- Allows for processing ACH /check transactions for recurring billing.

* = This is for recurring.asmx web service. Not to be confused with Transact.asmx

REPORTING WEB SERVICES

GETCARDTRX

This Web service operation retrieves card transaction details for a merchant. The URL to access this Web service is: https://*test.prolificpaymentsolutions.com*/admin/ws/trxdetail.asmx?op=GetCardTrx. Descriptions of the parameters are listed below.

Parameter	Field Attribute	Description
UserName	Required	User name assigned in the payment server
Password	Required	Password for the user name assigned in the payment server
RPNum	Required	The merchant's RP Number in order to uniquely identify merchant's account for the query

PNRef	Optional	The unique payment reference number assigned to the transaction. *If this field is provided, all other query fields will be ignored when using **PNRef** parameter to query the system.*
BeginDt	Conditional	Required, except when PNRef is provided. The begin date of the date range in MM/DD/YYYY (or YYYY-MM-DD or YYYY-MM-DDThh:mm:ss) format. This date will be converted to YYYY-MM-DDThh:mm:ss (time is in 24-hour format). If the passed-in BeginDt does not contain time information, BeginDt will default to midnight on the given date. For example: 2012-08-19T12:00:12 is kept as is 2012-08-19 becomes 2005-08-19T00:00:00 2012/08/19 becomes 2005-08-19T00:00:00 08/19/2012 becomes 2005-08-19T00:00:00 The query to obtain transactions in the date range is constructed as follows: (Date DT >=BeginDt) AND (Date DT<EndDt) where Date DT is the transaction timestamp
EndDt	Conditional	Required, except when **PNRef** is provided. The end date of the date range in MM/DD/YYYY (or YYYY-MM-DD or YYYY-MM-DDThh:mm:ss) format. This date will be converted to YYYY-MM-DDThh:mm:ss (time is in 24-hour format). If the passed-in EndDt does not contain time information, EndDt will be incremented to the *next day* at midnight such that no transaction on the desired end date will be excluded based on its time. For example: 2012-08-19T12:00:12 is kept as is 2012-08-19 becomes 2005-08-20T00:00:00 08/19/2012 becomes 2005-08-20T00:00:00
PaymentType	Optional	If provided, only those transactions matching the **PaymentType** will be included. Valid values are: • **'AMEX'** American Express card • **'CARTBLANCH'** Carte Blanch card • **'DEBIT'** Debit card • **'DINERS'** Diners Club card • **'DISCOVER'** Novus Discover card • **'EBT'** Electronic Benefit Transfer • **'JAL'** JAL card • **'JCB'** Japanese Commercial Bank card • **'MASTERCARD'** Master card • **'VISA'** Visa card • **'EGC'** Gift card • **'PAYRECEIPT'** to retrieve receipt images that were uploaded to the payment server • **'SETTLE'** to retrieve requests to settle transactions Or any permutation of the above values, e.g. "**'PAYRECEIPT','SETTLE'**" will pull all transactions with either PayReceipt or Settle payment types.
ExcludePaymentType	Optional	If provided, any transaction matching the **ExcludePaymentType** will be excluded
TransType	Optional	If provided, only those transactions matching the **TransType** will be included.

		Valid values are • **'Authorization'** to retrieve previously-authorized (pre-auth) transactions • **'Capture'** to retrieve captured transactions • **'Credit'** to retrieve return transactions • **'ForceCapture'** to retrieve force-auth transactions • **'GetStatus'** to make an inquiry to the EBT or gift card's balance • **'PostAuth'** to retrieve post-auth transactions • **'Purged'** to remove a transaction from the current batch due to an error • **'Receipt'** to retrieve receipt images that were uploaded to the payment server • **'RepeatSale'** to retrieve repeat-sale transactions • **'Sale'** to retrieve sale transactions • **'Void'** to retrieve void transactions Or any permutation of the above values, e.g. "**'Credit','Sale'**" will pull all transactions with either Credit or Sale transaction types.
ExcludeTransType	Optional	If provided, any transaction matching the **ExcludeTransType** will be excluded
ApprovalCode	Optional	If provided, only those transactions matching the **ApprovalCode** parameter will be included
Result	Optional	If provided, only those transactions matching the **Result** will be included. Valid values are: • **0** is Approved • Anything else is declined; if you want all the declined transactions, you should leave this field empty and use the **ExcludeResult**=0 instead.
ExcludeResult	Optional	If provided, any transactions matching the **ExcludeResult** will be excluded.
NameOnCard	Optional	Cardholder's name as it is appears on the card. If provided, only those transactions with cardholder's name matching **NameOnCard** will be included. Matching is done using wild cards: e.g. "test" will match "test", "1test" and "1test234"
CardNum	Optional	A card number. If provided, only those transactions with the cardholder's name matching **CardNum** will be included. Matching is done using wild cards
CardType	Optional	If provided, only those transactions matching the **CardType** will be included. Valid values are: • **'AMEX'** American Express card • **'CARTBLANCH'** Carte Blanch card • **'DEBIT'** Debit card • **'DINERS'** Diners Club card • **'DISCOVER'** Novus Discover card • **'EBT'** Electronic Benefit Transfer

		• **'JAL'** JAL card • **'JCB'** Japanese Commercial Bank card • **'MASTERCARD'** Master card • **'VISA'** Visa card • **'EGC'** Gift card Or any permutation of the above values, "'**VISA','MASTER','DISCOVER'**'" will pull all transactions with either VISA, MASTER and DISCOVER card type There are cases when Cardtype needs to be set to ALL, for example CardType=ALL
ExcludeCardType	Optional	If provided, any transaction matching the **ExcludeCardType** will be excluded
ExcludeVoid	Conditional	Required, except when **PNRef** is provided. An option to exclude voided transactions or not; must either be **TRUE** or **FALSE**
User	Optional	The user who originated the transactions. If provided, only those transactions created by the matching **User** will be included. Matching is done using wild cards
InvoiceId	Optional	The invoice ID that was included in the original transaction. If provided, only those transactions with matching **invoiceId** will be included. Matching is done using wild cards
SettleFlag	Optional	An option to retrieve the settled transactions or unsettled transactions; must either be **1** for true or **0** for false
SettleMsg	Optional	The settlement ID or message returned from the host
SettleDt	Optional	The date of the settlement
TransformType	Optional	The type of format to transform the data into. Leave the field blank to default to **XML** • **XML** will output the plain XML string • **XSL** will use XSL to transform the XML output • **DELIM** uses **ColDelim** and **RowDelim** to format the output
Xsl		Optional. This field is used only if the **TransformType** is **XSL**. The XSL to transform the resulting dataset. If provided, the resulting dataset will be transformed using this XSL. You may pass in a URL to the XSL file, or the XSL string itself. If this field is not empty, the Web Services will try to locate the file from the URL. If that also fails, it will treat it as an XSL string. In any case, the final XSL string will be loaded and validated against the XSL schema; if it passes, then that XSL will be used for transformation. A sample predefined XSL is included with this Web Services: • **https://test.prolificpaymentsolutions.com/admin/ws/TabDelim.xsl** for a tab delimited transformation
ColDelim	Optional	This field is used only if the **TransformType** is **DELIM**. This defines the string that separates each column
RowDelim	Optional	This field is used only if the **TransformType** is **DELIM**. This defines the string that separates each row

IncludeHeader	Optional	This field is used only if the **TransformType** is **DELIM**. If **TRUE**, then field headers will be included in the first row using the same delimiter strings; must either be **TRUE** or **FALSE**
ExtData	Optional	Extended data in XML format. Valid values are: • **<IMAGE_TYPE>NO_IMAGE</IMAGE_TYPE>** for no image • **<IMAGE_TYPE>ONLY_IMAGE</IMAGE_TYPE>** for only the image • **<IMAGE_TYPE>ALL</IMAGE_TYPE>** for all images • **<CustomerID>**CustomerID**</CustomerID>** for customer ID • <Amount>Amount</Amount> Total amount to search transactions for in DDDD.CC format. • **<RegisterNum>**RegisterNum**</RegisterNum>** Register number, originally passed with the transaction, to search transactions for.

GetCardTrxSummary

This Web service operation retrieves a card transaction summary for a merchant. The URL to access this Web service is:

https://*test.prolificpaymentsolutions.com*/admin/ws/trxdetail.asmx?op=GetCardTrxSummary.

Descriptions of the parameters are listed below.

Parameter	Field Attribute	Description
UserName	Required	User name assigned in the payment server
Password	Required	Password for the user name assigned in the payment server
RPNum	Required	Required. The merchant's RP Number in order to uniquely identify the merchant's account for the query
BeginDt	Required	The begin date of the date range in MM/DD/YYYY format. This date will be converted to MM/DD/YYYYT00:00:00:0000AM
EndDt	Required	The end date of the date range in MM/DD/YYYY format. This date will be converted to MM/DD/YYYYT12:59:59:9999PM
ApprovalCode	Optional	If provided, only those transactions matching the **ApprovalCode** parameter will be included
Register	Optional	The register that originated the transaction. If provided, only those transactions with the matching register will be included
NameOnCard	Optional	Cardholder's name as it is appears on the card. If provided, only those transactions with cardholder's name matching **NameOnCard** will be included. Matching is done using wild cards: e.g. "test" will match "test", "1test" and "1test234"
CardNum	Optional	A card number. If provided, only those transactions with the cardholder's name matching **CardNum** will be included. Matching is done using wild cards
CardType	Optional	If provided, only those transactions matching the **CardType** will be included. Valid values are: • **'AMEX'** American Express card • **'CARTBLANCH'** Carte Blanch card • **'DEBIT'** Debit card • **'DINERS'** Diners Club card • **'DISCOVER'** Novus Discover card • **'EBT'** Electronic Benefit Transfer • **'JAL'** JAL card • **'JCB'** Japanese Commercial Bank card • **'MASTERCARD'** Master card • **'VISA'** Visa card • **'EGC'** Gift card
ExcludeVoid	Required	Whether to exclude voided transactions; must either be **TRUE** or **FALSE**. Default is **TRUE**
User	Optional	The user who originated the transactions. If provided, only those transactions created by the matching **User** will be included. Matching is done using wild cards
SettleFlag	Optional	An option to retrieve the settled transactions or unsettled transactions; must either be **TRUE** or **FALSE**
SettleMsg	Optional	The settlement ID or message returned from the host

SettleDt	Optional	The settlement timestamp
TransformType	Optional	The type of format to transform the data into. Leave the field blank to default to **XML** • **XML** will output the plain XML string • **XSL** will use XSL to transform the XML output • **DELIM** uses **ColDelim** and **RowDelim** to format the output
Xsl	Optional	This field is used only if the **TransformType** is **XSL**. The XSL to transform the resulting dataset; if provided, the resulting dataset will be transformed using this XSL. You may pass in a URL to the XSL file, or the XSL string itself. If this field is not empty, the Web Services will try to locate the file from the URL. If that also fails, it will treat it as a XSL string. In any case, the final XSL string will be loaded and validated against the XSL schema; if it passes, then that XSL will be used for transformation. A sample predefined XSL is included with this Web Services: • **https://test.prolificpaymentsolutions.com/admin/ws/TabDelim.xsl** for a tab delimited transformation
ColDelim	Optional	This field is used only if the **TransformType** is **DELIM**. This defines the string that separates each column
RowDelim	Optional	This field is used only if the **TransformType** is **DELIM**. This defines the string that separates each row
IncludeHeader	Optional	This field is used only if the **TransformType** is **DELIM**. If **TRUE**, then field headers will be included in the first row using the same delimiter strings; must either be **TRUE** or **FALSE**
ExtData	Optional	Extended data in XML format. Valid values are: • **<IMAGE_TYPE>NO_IMAGE</IMAGE_TYPE>** for no image • **<IMAGE_TYPE>ONLY_IMAGE</IMAGE_TYPE>** for only the image • **<IMAGE_TYPE>ALL</IMAGE_TYPE>** for all images

GETCHECKTRX

This Web service operation retrieves checks transaction details for a merchant. The URL to access this Web service is:
https://*test.prolificpaymentsolutions.com*/admin/ws/trxdetail.asmx?op=GetCheckTrx. Descriptions of the parameters are listed below.

Parameter	Field Attribute	Value
UserName	Required	User name assigned in the payment server
Password	Required	Password for the user name assigned in the payment server
RPNum	Required	The merchant's RP Number in order to uniquely identify merchant's account for the query
PNRef	Optional	The unique payment reference number assigned to the transaction. If this field

		is provided, all other query fields will be ignored when using **PNRef** parameter to query the system
BeginDt	Conditional	Required, except when **PNRef** is provided. The begin date of the date range in MM/DD/YYYY (or YYYY-MM-DD or YYYY-MM-DDThh:mm:ss) format. This date will be converted to YYYY-MM-DDThh:mm:ss (time is in 24-hour format). If the passed-in BeginDt does not contain time information, BeginDt will default to midnight on the given date. For example: 2005-08-19T12:00:12 is kept as is 2005-08-19 becomes 2005-08-19T00:00:00 2005/08/19 becomes 2005-08-19T00:00:00 08/19/2005 becomes 2005-08-19T00:00:00 The query to obtain transactions in the date range is constructed as follows: (Date DT >=BeginDt) AND (Date DT<EndDt) where Date DT is the transaction timestamp
EndDt	Conditional	Required, except when **PNRef** is provided. The end date of the date range in MM/DD/YYYY (or YYYY-MM-DD or YYYY-MM-DDThh:mm:ss) format. This date will be converted to YYYY-MM-DDThh:mm:ss (time is in 24-hour format). If the passed-in EndDt does not contain time information, EndDt will be incremented to the *next day* at midnight such that no transaction on the desired end date will be excluded based on its time. For example: 2005-08-19T12:00:12 is kept as is 2005-08-19 becomes 2005-08-20T00:00:00 08/19/2005 becomes 2005-08-20T00:00:00
PaymentType	Optional	If provided, only those transactions matching the **PaymentType** will be included. Valid values are: • **'ACH'** Automated Clearing House • **'ECHECK'** Electronic Check • **'GUARANTEE'** Guarantee check • **'PAYRECEIPT'** to retrieve receipt images that were uploaded to the payment server • **'SETTLE'** to retrieve requests to settle transactions • **'VERIFY'** to retrieve pre-authorized checks Or any permutation of the above values, e.g. "**'ACH','ECHECK'**" will pull all transactions with either ACH or ECHECK payment types
ExcludePaymentType	Optional	If provided, any transaction matching the **ExcludePaymentType** will be excluded
TransType	Optional	If provided, only those transactions matching the **TransType** will be included. Valid values are: • **'Authorization'** to retrieve previously-authorized (pre-auth) transactions • **'Capture'** to retrieve captured transactions • **'Credit'** to retrieve return transactions • **'ForceCapture'** to retrieve force-auth transactions • **'GetStatus'** to make an inquiry to the EBT or gift card's balance • **'PostAuth'** to retrieve post-auth transactions

		• **'Purged'** to remove a transaction from the current batch due to an error
		• **'Receipt'** to retrieve receipt images that were uploaded to the payment server
		• **'RepeatSale'** to retrieve repeat-sale transactions
		• **'Sale'** to retrieve sale transactions
		• **'Void'** to retrieve void transactions
		Or any permutation of the above values, e.g. "**'Credit','Sale'**" will pull all transactions with either Credit or Sale transaction types
ExcludeTransType	Optional	If provided, any transaction matching the **ExcludeTransType** will be excluded
ApprovalCode	Optional	If provided, only those transactions matching the **ApprovalCode** parameter will be included
Result	Optional	If provided, only those transactions matching the **Result** will be included. Valid values are: • **0** is Approved • Anything else is declined, if you want all the declined transactions, you should leave this field empty and use the **ExcludeResult**=0 instead
ExcludeResult	Optional	If provided, any transactions matching the **ExcludedResult** will be excluded
NameOnCheck	Optional	Check owner's name as it is appear on the check, if provided. Only those transactions with check owner's name matching **NameOnCheck** will be included. Matching is done using wild cards: e.g. "test" will match "test", "1test" and "1test234"
CheckNum	Optional	Check number. If provided, only those transactions with matching **CheckNum** will be included
AcctNum	Optional	Check account number. If provided, only those transactions matching the **AcctNum** will be included. Matching is done using wild cards
RouteNum	Optional	If provided, any transactions matching the **RouteNum** (Transit Number) will be excluded. Matching is done using wild cards
ExcludeVoid	Optional	Whether to exclude voided transactions; must either be **TRUE** or **FALSE**. The default value is **TRUE**
User	Optional	The user who originated the transactions. If provided, only those transactions created by the matching **User** will be included. Matching is done using wild cards
InvoiceId	Optional	The invoice ID that was included in the original transaction. If provided, only those transactions with matching **invoiceId** will be included. Matching is done using wild cards
SettleFlag	Optional	Whether the transaction was settled; must either be **1** for true or **0** for false
SettleMsg	Optional	The settlement ID or message returned from the host
SettleDt	Optional	The settlement timestamp
TransformType	Optional	The type of format to transform the data into. Leave the field blank to default to **XML** • **XML** will output the plain XML string

		• **XSL** will use XSL to transform the XML output • **DELIM** uses **ColDelim** and **RowDelim** to format the output
Xsl	Optional	This field is used only if the **TransformType** is **XSL**. The XSL to transform the resulting dataset; if provided, the resulting dataset will be transformed using this XSL. You may pass in a URL to the XSL file, or the XSL string itself. If this field is not empty, the Web Services will try to locate the file from the URL. If that also fails, it will treat it as a XSL string. In any case, the final XSL string will be loaded and validated against the XSL schema; if it passes, then that XSL will be used for transformation. A sample predefined XSL is included with this Web Services: • **https://test.prolificpaymentsolutions.com/admin/ws/TabDelim.xsl** for a tab delimited transformation.
ColDelim	Optional	This field is used only if the **TransformType** is **DELIM**. This defines the string that separates each column
RowDelim	Optional	This field is used only if the **TransformType** is **DELIM**. This defines the string that separates each row
IncludeHeader	Optional	This field is used only if the **TransformType** is **DELIM**. If **TRUE**, then field headers will be included in the first row using the same delimiter strings; must either be **TRUE** or **FALSE**
ExtData	Optional	Extended data in XML format. Valid values are: • **<IMAGE_TYPE>NO_IMAGE</IMAGE_TYPE>** for no image • **<IMAGE_TYPE>ONLY_IMAGE</IMAGE_TYPE>** for only the image • **<IMAGE_TYPE>ALL</IMAGE_TYPE>** for all images • **<CustomerID>***CustomerID***</CustomerID>** for customer ID • <**Amount**>*Amount*</**Amount**> Total amount to search transactions for in DDDD.CC format. • <**RegisterNum**>*RegisterNum*</**RegisterNum**> Register number, originally passed with the transaction, to search transactions for

GETINFO

This Web service retrieves information pertaining to the transaction type (TransType) specified. The URL to access this Web service is:
https://*test.prolificpaymentsolutions.com*/SmartPayments/transact.asmx?op=GetInfo. Descriptions of the parameters are listed below.

Parameter	Field Attribute	Description
UserName	Required	User name assigned in the payment server
Password	Required	Password for the user name assigned in the payment server
TransType	Required	Valid values are:

		• **BatchInquiry** returns a comma delimited list in a single XML tag that contains the summarized transaction dollar amount and transaction count for each payment method in the current batch. The list is in the following format: *Payment_Method1=0.00*, *Payment_Method2=0.00* • **Setup** returns a comma delimited list in a single XML tag that contains merchant setup information. The list is in the following format: *Setup_Name1=Y|N*,*Setup_Name2=Y|N* • **StatusCheck** returns "OK" if a connection can be made to the payment server with the supplied user name and password; otherwise, an error message is returned • **Initialize** returns the merchant account setup, including Partner number, Merchant ID, credit card type, phone number, etc. • **KeyChangeRequest-** This request is done usually when the pin pad is initialzed for the first time or after a necessary reboot. It will contact the Global host and require that a new key be sent to the pin pad in use. **(Please see ProcessDebit Web Service for other related Global Debit descriptions)** • **<CardType>DEBIT</Cardtype><TID>***TID Value***</TID> Add Reversal or KeyChangeRequest.** This is used for Global Canadian Debit following the INTERAC regulations where the TID or terminal Identification number is configured based on the pin pad used as assigned by the processor. These tags are required by the KeyChangeRequest and AddReversal Transtypes for Canadian Debit

ExtData	Optional	Extended data in XML format. Valid values are:
		
		• **<TrainingMode>T</TrainingMode>** an indicator that specifies transactions will be processed for local loop back testing
		
		• **<TrainingMode>F</TrainingMode>** an indicator that specifies transactions will not be processed for local loop back testing
		
		• **<BatchSequenceNum>***Number***</BatchSequenceNum>** used when the **TransType** is **BatchInquiry** and it is a number that indicates which previous batch or current batch the Payment Server should query from the processor in order to get information about the batch. Currently only support with Global Payments. Valid values are:
		
		   • **0** = Current open batch (default value if **BatchSequenceNum** is not specified in **ExtData**)
		
		   • **1** = previous batch
		
		   • **2** = the batch before the previous batch specified with the value **1**
		
		   • *N* = and so on…

GETOPENBATCHSUMMARY

This Web service operation retrieves a payment type transaction summary of the current open batch for a merchant. The URL to access this Web service is:

https://*test.prolificpaymentsolutions.com*/admin/ws/trxdetail.asmx?op=GetOpenBatchSummary. Descriptions of the parameters are listed below.

Parameter	Field Attribute	Description
UserName	Required	User name assigned in the payment server
Password	Required	Password for the user name assigned in the payment server
RPNum	Required	The number uniquely identifies each merchant
BeginDt	Optional	The begin date of the date range in MM/DD/YYYY format. This date will be converted to: MM/DD/YYYYT00:00:00:0000AM
EndDt	Optional	The end date of the date range in MM/DD/YYYY format. This date will be converted to: MM/DD/YYYYT12:59:59:9999PM
ExtData	Optional	Currently there is no data value available

TRANSACT WEB SERVICES

PROCESSCHECK

This Web service operation processes check transactions for a merchant. The URL to access this Web service is:

https://*test.prolificpaymentsolutions.com*/SmartPayments/transact.asmx?op=ProcessCheck. Descriptions of the parameters are listed below.

Parameter	Field Attribute	Description
UserName	Required	User name assigned in the payment server
Password	Required	Password for the user name assigned in the payment server
TransType	Required	Type of the check transaction. Valid values are: • **Sale** to make a purchase with a check • **Auth** (Verify) to authorize/verify an amount of a check • **Return** to return the money of a settled check transaction to the check holder • **Void** to undo an unsettled check transaction • **Force** to force a previous **Sale** transaction into the current batch (ForceSale) • **Capture** to settle a single transaction in the current batch; only for terminal-based processors • **CaptureAll** to settle all transactions in the current batch; only for terminal-based processors

CheckNum	Conditional	Required except for these **TransType**'s: **Void**, **Capture**, **CaptureAll**. Check number uniquely identifies each individual check
TransitNum	Conditional	Required except for these **TransType**'s: **Void**, **Capture**, **CaptureAll**. Transit number uniquely identifies a bank routing number
AccountNum	Conditional	Required except for these **TransType**'s: **Void**, **Capture**, **CaptureAll**. Account number uniquely identifies a check holder's bank account number
Amount	Conditional	Required except for these **TransType**'s: **Void**, **Capture**, **CaptureAll**. The total transaction amount in DDDD.CC format
MICR	Optional	The Magnetic Ink Check Reader data line, which includes **TransitNum**, and **AccountNum**. Required for processing Check-Present transactions. The formats of the MICR is processor specific and if the developer is not sure about what format your Check processor accepts, pass the RAW MICR as well in the TOAD format and details of this are described in the extended data. If the developer is sure about the preceise format for MICR that is supported by the Check processor, then there is no need to pass the Raw MICR in TOAD format.
NameOnCheck	Conditional	Required except for these **TransType**'s: **Void**, **Capture**, **CaptureAll**. The check holder's name as it appears on the check. The parameter may be required, depending on the merchant's processor setup. This parameter will remove invalid characters. See list of Removed Characters for more details
DL	Optional	The check holder's driver's license number. This parameter will remove invalid characters. See list of Removed Characters for more details
SS	Optional	The check holder's Social Security Number. This parameter will remove invalid characters. See list of Removed Characters for more details
DOB	Optional	The check holder's date of birth. This parameter will remove invalid characters. See list of Removed Characters for more details
StateCode	Optional	The check holder's 2 character state code. The parameter may be required depending on the merchant's processor setup. This parameter will remove invalid characters. See list of Removed Characters for more details
CheckType	Optional	Optional. The type of the check. Valid values are: • **Personal** • **Corporate** • **Government**
ExtData	Conditional	Extended data in XML format These tags may be required for **Sale** and **Return** transactions depending on the merchant's processor setup: **CityOfAccount**, **BillToStreet**, and **BillToPostalCode**. Required tag for **Return**, **Void**, **Force**, and **Capture** transactions is: **PNRef**. **RawMICR** tag is required for processing Check-Present transactions. Valid values are: • <**TimeOut**>*TimeOut*</**TimeOut**> for timeout value in seconds (default = 30)

- **<PNRef>**_PNRef_**</PNRef>** for a reference number assigned by the payment server

- **<Phone>**_Phone_**</Phone>** for phone number. The data within this XML tag parameter will remove invalid characters. See list of [Removed Characters] for more details

- **<Email>**_EMail_**</EMail>** for email address. The data within this XML tag parameter will remove invalid characters. See list of [Removed Characters] for more details

- **<RawMICR>**_RawMICR_**</RawMICR>** for raw Magnetic Ink Check Reader data from the check reader in the format of: _TransitNum_T_AccountNum_O_CheckNum_

Note: The TOAD format will be the accepted default format for Raw MICR for all check processors supported.

- **<InvNum>**_InvNum_**</InvNum>** for invoice tracking number. The data within this XML tag parameter will remove invalid characters. See list of [Removed Characters] for more details

- **<TrainingMode>**_TrainingMode_**</TrainingMode>** to process transaction in Training Mode; either **T** or **F**

- **<AllianceNum>**AllianceNum**</AllianceNum>** is the Alliance number for the check

- **<AccType>**_AccountType_**</AccType>** is the type bank account for the check. Valid values are **Checking** or **Saving**

- **<CityOfAccount>**_CityOfAccount_**</CityOfAccount>** for city name of the check holder's residential address. The data within this XML tag parameter will remove invalid characters. See list of [Removed Characters] for more details

- **<BillToStreet>**_BillToStreet_**</BillToStreet>** for street name of the check holder's billing address. The data within this XML tag parameter will remove invalid characters. See list of [Removed Characters] for more details.

- **<BillToCity>**_BillToCity_**</BillToCity>** for city name of the check holder's billing address. The data within this XML tag parameter will remove invalid characters. See list of [Removed Characters] for more details

- **<BillToState>**_BillToState_**</BillToState>** for the two character state code of the check holder's billing address. The data within this XML tag parameter will remove invalid characters. See list of [Removed Characters] for more details

- **<BillToPostalCode>**_BillToPostalCode_**</BillToPostalCode>** for zip code of the check holder's billing address. The data within this XML tag parameter will remove invalid characters. See list of [Removed Characters] for more details

- **<BillToCountry>**_BillToCountry_**</BillToCountry>** for country name of the check holder's billing address. The data within this XML tag parameter will remove invalid characters. See list of [Removed Characters] for more details

- **<CustomerID>**_CustomerID_**</CustomerID>** for customer ID. The data within this XML tag parameter will remove invalid characters. See list of [Removed Characters] for more details

		• **<CardType>**IMAGE**</CardType>** for use in Image uploads specific to the processor RDM_ITMS.Please see example on how to upload a check image in the ProcessCheck Examples.

PROCESSCREDITCARD

This Web service operation processes credit card transactions for a merchant. The URL to access this Web service is:

https://*test.prolificpaymentsolutions.com*/SmartPayments/transact.asmx?op=ProcessCreditCard. Descriptions of the parameters are listed below.

Parameter	Field Attribute	Description
UserName	Required	User name assigned in the payment server
Password	Required	Password for the user name assigned in the payment server
TransType	Required	Type of the credit card transaction. Valid values are: • **Sale** to make a purchase on a credit card • **Adjustment** is used to modify an existing tip amount for an original sale.This applies to the processors that support restaurant adjustment transactions • **Auth** to authorize an amount on a credit card. If used with PNREF of an existing auth and passed along with a different amount on request, it extends this type to "repeat Auth" transactions. • **Return** to credit the cardholder's account • **Void** to undo an unsettled transaction. Note: pass the Card Number and ExpDate with null values on voids • **Force** to place an **Auth** transaction into the current batch (PostAuth) or to place a transaction not processed through the payment server into the current batch (ForceAuth) • **Capture** to settle a single transaction in the current batch; only for terminal-based processors • **CaptureAll** to settle all transactions in the current batch; only for terminal-based processors or host-based processors that support a batch release feature • **RepeatSale** to perform a recurring billing or installment payment transaction • **Reversal** to perform a manual full reversal on a credit card sale or repeat sale within 24 hours of sending the original transaction. Its expected behavior is defined by the type of the payment processor the merchant account is configured for. Currently, this is only supported with Global, Tsys and First Data North.

		Note: *Reversal is only supported in the 2.08.1201 Payment Server Build for payment processors: Tsys, Global and FDC North (CES).* *For Tsys: The supported issuers are VISA and Mastercard and the supported industries are only Direct Marketing and Ecommerce. Reversals must be processed within 24 hours of the original credit card transaction.* *For FDC North: The supported industries are retail and restaurant and reversals must be processed within 24 hours of the original credit card transaction.* *For Global: This is supported for all credit card issuers and supported for all industries. It will act as a void host and it has to be processed within the open batch time period.*
CardNum	Conditional	Optional except for these **TransType**'s: **Sale**, **Auth**, **Return**, **Force** (ForceAuth). Credit card number to process the transaction. For all other transaction types the parameter needs to be included
ExpDate	Conditional	Optional except for these **TransType**'s: **Sale**, **Auth**, **Return**, **Force** (ForceAuth). Credit card's expiration date in MMYY format. For all other transaction types the parameter needs to be included
MagData	Conditional	Optional except when processing swiped card transactions. Data located on the track 2 of the magnetic strip of the card. Once this field is populated, the transaction will be indicated as *Card-Present* transaction and usually result in a more favorable retail discount rate. This parameter will remove invalid characters. See list of Removed Characters for more details The format of the MagData (or Track 2 data) is CardNum=ExpDate followed by the service code and checksum. For example, 36438999960016=05121015432112345678
NameOnCard	Conditional	Optional, depending on different merchant processor setups. The cardholder's name as it appears on the card. This parameter will remove invalid characters. See list of Removed Characters for more details
Amount	Conditional	Optional except for these **TransType**'s: **Auth**, **Sale**, **Return**, **Force** (both PostAuth and ForceAuth). The total transaction amount in DDDD.CC format
InvNum	Optional	Invoice tracking number. This parameter will remove invalid characters. See list of Removed Characters for more details
PNRef	Conditional	Optional except for these **TransType**'s: **Void**, **Force** (PostAuth), **Capture**. Reference number assigned by the payment server
Zip	Conditional	Optional depending on different merchant processor setups. Cardholder's billing address zip code used in address verification. This parameter will remove invalid characters. See list of Removed Characters for more details
Street		Optional depending on different merchant processor setup. Cardholder's billing street address used in address verification. This parameter will remove invalid characters. See list of Removed Characters for more details
CVNum	Optional	Card verification number
ExtData	Conditional	Optional except in the cases of: **AuthCode** (required for a **Force** (ForceAuth) transaction); **City** and **BillToState** (required by certain processors); **Invoice** and associated nested data elements (required for Concord EFS Purchase Card Level 3 and Fuel purchases- see section below). Extended data in XML format. Valid values are:

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- o **<AuthCode>**_ApprovalCode_**</AuthCode>** for original authorization code

- o **<CustCode>**_CustomerCode_**</CustCode>** for customer code or PO number of the customer. The data within this XML tag parameter will remove invalid characters. See list of Removed Characters for more details (Note* This is the tag to be passed for Level II information for Global Payments only, please use PONUM for the other processors that support level II.)

- o **<ConvenienceAmt>**ConvenienceAmt**</ConvenienceAmt>** Allows for passing a convenience amount along with the transaction request. The format is DDDD.CC.

- o **<TipAmt>**_TipAmount_**</TipAmt>** for tip amount in DDDD.CC format

- o **<TaxAmt>**_TaxAmount_**</TaxAmt>** for tax amount in DDDD.CC format

- o <**SequenceNum**>_SequenceNum_</**SequenceNum**> for sequence number used with RepeatSale installment transactions; this designates which number in the sequence the transaction is; it must be a positive integer smaller than or equal to the SequenceCount

- o <**SequenceCount**>_SequenceCount_</**SequenceCount**> for sequence count used with RepeatSale installment transactions; this designates the total number of charges that will be made; it must be a positive integer greater than or equal to the SequenceNum

- o <**ServerID**>_ServerID_<**ServerID**> for a unique server identification number. The data within this XML tag parameter will remove invalid characters. See list of Removed Characters for more details

- o <**TimeOut**>_TimeOut_</**TimeOut**> for timeout value in seconds (default = 40 for a Transaction and 300 for a Settlement transaction.)

- o <**TrainingMode**>_TrainingMode_</**TrainingMode**> to process transaction in Training Mode; either **T** or **F**

- o **<TransactionID>** Transaction Identifier Value **</TransactionID>** This is string numerical value that can be passed along with an original transaction used for identification and voids. You can now void a target original transaction with the use of a transaction identifier in the Payment server version 2.07.0914. Please see examples of void using Transaction ID.

- o **<Target>** Transaction ID value of orginal transaction**</Target>** This is used as a tag to identify the target transaction id of the original transaction you wish to void without the use of a PNREF number.

- o <**Force**>_Force_</**Force**> for forcing duplicate transactions to be processed; either **T** or **F**. Note that some processors, including Concord EFS, will not utilize this tag and may still reject a duplicate transaction

- o <**RegisterNum**>_RegisterNum_</**RegisterNum**> for register number. The data within this XML tag parameter will remove invalid characters. See list of Removed Characters for more details

- o <**City**>_City_</**City**> for the city name of the cardholder's billing address. The data within this XML tag parameter will remove invalid characters. See list of Removed Characters for more details

- o <**BillToState**>_State_</**BillToState**> for the two character state code of the cardholder's billing address. The data within this XML tag parameter will remove invalid characters. See list of Removed

Characters for more details

o **<CustomerID>**CustomerID**</CustomerID>** for customer ID

o **<PONum>**PONum**</PONum>** for purchase order number. The data within this XML tag parameter will remove invalid characters. See list of Removed Characters for more details (Note* This is to be used for Level II information except Global Payments)

o <**BillPayment**>BillPayment</**BillPayment**> to indicate that a transaction is a utility bill payment; either **T** or **F**; only supported for **TransType**'s **Sale** and **RepeatSale**; This tag is only relevant to Retail, MOTO, and eCommerce markets. Currently, this information is only supported for Vital, First Data North, and Global Payments processors; other processors may be supported in the future

o **<Authentication>**

    o **<XID>**AuthenticationID**</XID> Verified By VISA**

    o **<CAVV>**CAVV**</CAVV> CAVV response value**

    o **<UCAF>**UCAF**</UCAF> Universal Card Holder Authentication Field**

Verified by Visa and Universal Cardholder Authentication Field are programs implemented by Visa and MasterCard respectively to verify that an account number is being submitted by the cardholder. These programs are for the Ecommerce market exclusively and only MasterCard and Visa cards support this feature.The data for Visa and MasterCard is different.There is a possible CAVV response for Visa cards that will be returned via ExtData * Please see sample in the section Examples for Verified by VISA and UCAF for Mastercard.

    o **<TrustAttempt>T</TrustAttempt>**

The trust attempt tag will indicate VBV or MS was attempted but no XID, CAVV, or UCAFF is available for the transaction.

    </Authentication>

o **<CVPresence>**CVPresence Value**</CVPresence>** CVV2 / CVC2 / CID Presence, indicates whether a CVV2 or CID has been sent along with the request.The valid values for this tag are: 1. **None 2.NotSubmitted 3.Submitted 4.Illegible, 5.NotPresent (Not present on card). *Please see sample request and response for this CVPresence tag field.**

*PINCapability is sent by the POS application to indicate whether a pin pad is connected to the POS System. This tag only applies to *Global Payments East*. The applicable values are:

1. Capable   2.Incapable   3. Inoperative   4. Unknown

o **<AuthenticationCapability>**
    ▪ **<PINCapability>PINCapability</PINCapability>**
</AuthenticationCapability>

Card Present Indicator: This is a tag that will indicate if the card was 1.Present, 2. Not Present or 3.Unknown during a transaction. This is used in Retail and

Restaurant settings mainly where cards can be accepted manually.

- o **<Presentation>**
  - **<CardPresent>**CardPresent Value**</CardPresent>**

  </Presentation>

The valid values are: True for Card Present, False for Card not present and Unknown.

- o **<EntryMode>**_EntryModeValue_**</EntryMode>** this was added to indicate how the values for the payment information were obtained. The Valid values for this tag are: UNKNOWN, MANUAL,MAGNETICSTRIPE,ICC, and PROXIMITY

- o **<Invoice>**_Invoice_**</Invoice>** to indicate invoice details will be included. Required for Concord EFS Purchase Card Level 3 but optional for fuel purchases. However, fuel purchases must contain the **<Items>** element for transactions of type **Sale** and **Force**. See below for hierarchy of required and optional elements nested within. Please note that all elements included inside **<Invoice>** must be in the specific order listed below

- o **<Invoice>**
  - **<InvNum>**_InvNum_**</InvNum>** Purchase invoice number

  - **<Date>**_Date_**</Date>** Date of invoice in YYMMDD format for Concord

  - **<BillTo>**

  - **<CustomerId>**_CustomerId_**</CustomerId>** Customer ID number

  - **<Name>**_Name_**</Name>** Customer name

  - **<Address>** Customer address

  - **<Street>**_Street_**</Street>** Customer address street

  - **<City>**_City_**</City>** Customer address city

  - **<State>**_State_**</State>** Customer address state

  - **<Zip>**_Zip_**</Zip>** Customer address zip code

  - **<Country>**_Country_**</Country>** Customer address country

  - **</Address>**

  - **<Email>**_Email_**</Email>** Customer email

  - **<Phone>**_Phone_**</Phone>** Customer phone number

  - **<Fax>**_Fax_**</Fax>** Customer fax number

  - **<CustCode>**_CustCode_**</CustCode>** Customer code

  - **<PONum>**_PONum_**</PONum>** Purchase order number from customer

  - **<TaxExempt>**_TaxExempt_**</TaxExempt>** Customer tax

exempt status

- **</BillTo>**

- **<Description>**_Description_**</Description>** Description of purchase

o **<Items>** Required for Concord EFS Purchase Card Level 3 and fuel purchases. Items contained in invoice. Contains one or more **<Item>** elements

  o **<Item>** Required for Concord EFS Purchase Card Level 3 and fuel card purchases. One item in invoice (item details nested within). There may be multiple **<Item>** nested within **<Items>** tag

    - **<SKU>**_SKU_**</SKU>** SKU number of item

    - **<UPC>**_UPC_**</UPC>** Required for Concord EFS Purchase Card Level 3 and fuel purchases. UPC number of item for Purchase Card Level 3 _or_ the NACS (National Association of Convenience Stores) product code for fuel purchases. The NACS is an industry standard list that Concord is utilizing. For a list of NACS product codes, please contact EFSnet™ customer support at support@concordefsnet.com or 1-877-852-2637.

    - **<Description>**_Description_**</Description>** Item description

    - **<Quantity>**_Quantity_**</Quantity** Required for Concord EFS Purchase Card Level 3 and fuel purchases. Quantity purchased of item

    - **<UnitOfMeasurement>**_UnitOfMeasure_**</UnitOf Measurement>** Unit of measurement for item

    - **<UnitPrice>**_UnitPrice_**</UnitPrice>** Required for Concord EFS Purchase Card Level 3 and fuel purchases. Unit price of item

    - **<DiscountAmt>**_DiscountAmount_**</DiscountAmt>** Possible discount amount on item

    - **<TaxAmt>**_TaxAmt_**</TaxAmt>** Possible tax amount on item

    - **<TotalAmt>**_TotalAmt_**</TotalAmt>** Total amount of item

    - **<Category>**_Category_**</Category>** Required for Concord EFS Purchase Card Level 3 and fuel purchases. Item category for Purchase Card Level 3 or the specific value **Fuel** to designate a fuel purchase item

    - **<TaxRate>**_TaxRate_**</TaxRate>** Possible tax rate applied to item

    </Item>

  </Items>

o **<DiscountAmt>**_DiscountAmount_**</DiscountAmt>** Possible

total discount for invoice

- o <**ShippingAmt**>*ShippingAmt*</**ShippingAmt**> Possible shipping amount for invoice

- o <**DutyAmt**>*DutyAmt*</**DutyAmt**> Possible duty amount for invoice

- o <**TaxAmt**>*TaxAmt*</**TaxAmt**> Possible tax amount for invoice

- o <**NationalTaxInc**>*NationalTaxInc*</**NationalTaxInc**> Possible additional tax amount included in invoice total

- o <**TotalAmt**>*TotalAmt*</**TotalAmt**> Total amount of the transaction on the invoice

- o </**Invoice**>

<**Fleet**>*Fleet*</**Fleet**> Required for Concord EFS Fleet card purchases. Information on fleet member making purchase. See below for hierarchy of elements nested within. Please note that all elements included inside <**Fleet**> must be in the specific order listed below

- o <**Fleet**>

  - o <**VehicleNum**>*VehicleNum*</**VehicleNum**> May be required for specific Concord EFS Fleet card purchases. The vehicle number

  - o <**DriverNum**>*DriverNum*</**DriverNum**> May be required for specific Concord EFS Fleet card purchases. The vehicle driver's number

  - o <**OdometerReading**>*OdometerReading*</**OdometerReading g**> May be required for specific Concord EFS Fleet card purchases. The current odometer reading of the fleet vehicle

  </**Fleet**>

<**CardType**>*CardType*</**CardType**>

When **TransType** does not equal **Capture** or **CaptureAll**: Required for manually-entered fleet card transactions that have the ISO prefix of the fleet card present only in the track data and not in the embossed data on the front of the card. Valid values are **WEX** and **Voyager**. Concord currently does not support manually entered Voyager cards

When **TransType** equals **CaptureAll**: Optional valid values can be: **ALL** to specify all payment methods assigned to the merchant account should be settled, or a combination of the specific payment methods separated by a colon (i.e. **CREDIT:DEBIT:EBT:EGC**) in order to specify which individual payment methods assigned to the merchant account should be settled. Please note that if the processor requires all payment methods to settle at the same time, it is required to use the **ALL** value or the appropriate combination of the specific payment methods in order to settle the account correctly. Currently, only host-based processors that support a manual batch settlement (or batch release) require all payment methods to be settled at the same time

When **TransType** equals **Capture**: This element does not apply since only 1 transaction will be settled

<Phase>Value</Phase>: This is applicable only to AMEX batch settlement where

the valid values are (Confirm, Submit and None).This processor supports settlement through phases and this tag value will determine the phase of the settlement file. The batch would have to be submitted before it can be settled by requesting a "Confirm" value.

Note: If you send a "Confirm" only, it will refer to the previous batch so this two step settlement process requires you to submit and then confirm to finalize the batch.

IIAS Fields specific to First Data North

<IIAS_Indicator>T or F</IIAS_Indicator> This field has two possible values, T or F.True to indicate current transaction was authorized by an auto substantiation database. False or not present will not qualify the transaction for IIAS and any other IIAS fields will be ignored. For the indicator to be recognized the merchant must be setup for retail and the card type must be Visa or MasterCard.

<Partial_Indicator>True</Partial_Indicator> This field has two possible values, T or F. True to indicate a partial approval transaction with the host. This is only needed to instruct the host to process the transaction as a partial authorization for available funds. False or not present will not qualify the transaction as a partial approval.

Note: The Partial approval indicator will return three fields in the response as received from the host (First Data North). The response fields are:

Requested Amount: Decimal dollar amount as requested for authorization.

Approved Amount: Decimal dollar amount as approved by the host

Balanced Amount: Decimal dollar amount on the remaining balance on the account.

All optional amounts should include the decimal. They are all 13 character fields with explicit decimal. The total of the sub amounts must match to the total authorization amount of the transaction.

Optional subtotal amount for qualified medical expenses (over the counter medical items). This applies to Visa transactions only.

- o <QHP_Amount>5.00</QHP_Amount>
- o Optional prescription/RX subtotal
- o <RX_Amount>1.00</RX_Amount>
- o Optional Vision/Optical subtotal
- o <Vision_Amount>1.00</Vision_Amount>
- o Optional Dental subtotal
- o <Dental_Amount>1.00</Dental_Amount>
- o Optional Clinical subtotal
- o <Clinical_Amount>1.00</Clinical_Amount>

If a partial reversal is required by an integrator, certain fields need to be passed to allow for partial reversals. The transaction type that you would pass with this request is the Reversal and two other required fields namely the PNREF number and IIAS Indicator set to true need to be sent along with the request.

The response will have the Partial_Reversal_Flag field set to true and a

		Total_Amount field will be returned as well to show what amount is to be settled after requesting the partial reversal transaction. Please see examples. Full reversals are also supported and this would require the IIAS_Indicator set to T (True).

Purchase Card Level 3 Data Use

Level 3 data on Purchase Card transactions is now available, but currently only through the Concord EFS processor. This sends invoice information with line-item detail provided to the processor for validation. The data is all sent through the **ExtData** parameter nested within the <**Invoice**> element (see chart above). Note that if you use the <**Invoice**> element it will ignore any data of the same purpose specified elsewhere by way of a parameter or other **ExtData** parameter tag, i.e. it will use one or the other but not both. For example, if you supply the <**TaxAmt**> element within the <**Invoice**> element *and* as a separate element in the **ExtData** parameter, the separate <**TaxAmt**> element outside the <**Invoice**> element will be ignored (duplicate information will not cause a problem). See Example 10 below for a sample transaction sending Purchase Card Level 3 data.

Fuel Purchases: Standard and Fleet Card Use

Credit card processing for fuel purchases with both Standard and Fleet type cards are now available, currently through Concord EFS only. This functionality allows for fuel purchases with standard credit cards (Visa, Mastercard, etc) and with Fleet type cards (Wex, Voyager, and MasterCard Fleet are currently supported). Fuel purchases are differentiated at the gateway from other purchases by the **Fuel** designation placed within the <**Category**> tag in item descriptions (see Examples 11 through 13 below). In effect, a transaction will only be treated as a fuel transaction if at least one of the items within **<Items>** is designated as category **Fuel**.

Both Standard and Fleet cards require item-level purchase information for fuel purchases (for **TransType**'s **Sale** and **Force**), and Fleet cards may additionally require vehicle number, driver number, and/or odometer information on such purchases. If all the required information for a certain purchase is not provided, the transaction will be rejected and an error message generated. Note that Fleet cards in some cases can be used to purchase non-fuel items on a transaction designated as fuel, but item-level information must be present for all items in the transaction, otherwise the transaction may be declined. The main implication for the developer is that additional data must be passed to the gateway in order for fuel purchases to process correctly.

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For standard credit card processing on **Sale** and **Force** fuel transactions, item-level purchase information must be provided. It can be passed inside the **<Items>** tag alone or nestled within **<Invoice>** information in **ExtData**. See above chart for details on these and other required XML tags for standard card processing on fuel transactions, and see Example 11 below.

For Fleet card processing on fuel purchases, additional information on the fleet member such as vehicle number, driver number, and/or odometer information may also need to be provided (according to the requirements for the particular Fleet card; for example, Wex typically requires the <DriverNum> tag). See the **<Fleet>** tag as described in the table above, and Examples 12 and 13 below. Fleet data must be provided on **Sale**, **Auth**, **Force**, and **Return** transactions. This information will be saved and, if not obtained a second time for a **Force** (PostAuth), will be automatically sent to the processor.

The Fleet data can generally come directly from the card's magnetic data or the POS system can acquire the data by examining information found on the card's magnetic data and then prompting the cardholder for the required data. When transactions are submitted, the card's requirements will be validated by the payment processor and an error will be generated if the proper Fleet data is not submitted. Exceptions: If a MasterCard Fleet card is used and Fleet information is not provided, the transaction will be processed as a standard fuel transaction, rather than generating an error. Also, MasterCard Fleet allows the user to exclude fleet data on manually-entered transactions.

Manual Fleet transactions present a special case. Fleet cards are different in that the account data embossed on a card is often not the same as the track (magnetic) data. This is true for both Wex and Voyager Fleet cards. The result of this is that in a manually-entered (non-swiped) card submission, the card type cannot be identified by the account number data displayed on the card. For a Wex card, the user must identify the card manually, and this information must be passed in **<CardType>** tag in the **ExtData** parameter (see Example 13). However, a Voyager card cannot be processed manually through Concord EFS at this time.

PROCESSDEBITCARD

This Web service operation processes debit card transactions for a merchant. The URL to access this Web service is:

https://*test.prolificpaymentsolutions.com*/SmartPayments/transact.asmx?op=ProcessDebitCard. Descriptions of the parameters are listed below.

Parameter	Field Attribute	Description
UserName	Required	User name assigned in the payment server

Password	Required	Password for the user name assigned in the payment server
TransType	Required	Type of the debit card transaction. Valid values are: • **Sale** to make a purchase on a debit card • **Return** to credit the cardholder's account • **Auth** to authorize an amount on a debit card. Pertains only to Concord EFS fuel transactions • **Force** to place **Auth** transactions into the current batch (PostAuth). Pertains only to Concord EFS fuel transactions • **Capture** to settle a single transaction in the current batch; only for terminal-based processors • **CaptureAll** to settle all transactions in the current batch; only for terminal-based processors or host-based processors that support a batch release feature • **AddReversal** to be used only with Global Canadian debit where when the host sends a response and the information is validated through the pin pad, if the information is found to be invalid. This transaction type can reverse the transaction sent to the host. The PNREF number of the original transaction can be sent along with the AddReversal transaction type to perform the reversal of that transaction. • **Reversal** to perform a manual full reversal on a debit card sale. Its expected behavior is defined by the type of the payment processor the merchant account is configured for. Currently, this is only supported with Global, Tsys and First Data North. ***Note:*** *Reversal is only supported in the 2.08.1201 Payment Server Build for payment processors: Tsys, Global and FDC North (CES).* *For Tsys: The supported issuers for all debit card issuers. The supported industries are only retail and restaurant. Reversals must be processed within 2 hours of the original debit card transaction.* *For FDC North: The supported industries are retail and restaurant. This is also supported for retail and restaurant and reversals must be processed within 24 hours of the original credit card transaction.* *For Global: This is supported for all debit card issuers. It is supported retail and restaurant industries**. It is required that the reversal be processed within the open batch time period. It restores debit bank account funds immediately.*
CardNum	Conditional	Required except for **Capture** and **CaptureAll**. Debit card number to process the transaction
ExpDate	Conditional	Required except for **Capture** and **CaptureAll**. Debit card's expiration date in MMYY format
MagData	Conditional	Required except for **Capture** and **CaptureAll**; required for all swiped card transactions. Data located on the track 2 of the magnetic strip of the card. Once this field is populated, the transaction will be indicated as *Card-Present* transaction and usually result in a more favorable retail discount rate. This parameter will remove invalid characters. See list of Removed Characters for

		more details
		The format of the MagData (or Track 2 data) is CardNum=ExpDate followed by the service code and checksum. For example, 36438999960016=05121015432112345678
NameOnCard	Optional	Optional, depending on different merchant processor setup. The cardholder's name as it appears on the card. This parameter will remove invalid characters. See list of <u>Removed Characters</u> for more details
Amount	Conditional	Required except for **CaptureAll**. The total transaction amount in DDDD.CC format. This amount includes **CashBackAmt** and **SureChargeAmt**
InvNum	Optional	Invoice tracking number. This parameter will remove invalid characters. See list of <u>Removed Characters</u> for more details
PNRef	Conditional	Optional except for **Force** and **Capture**. The reference number assigned by the payment server
Pin	Conditional	Required except for **Capture** and **CaptureAll** transactions and PIN-less debit transactions. The encrypted pin block returned by the pin-pad. The transaction will fail if an unencrypted pin value is used
RegisterNum	Optional	A number uniquely identifies the register or computer on which the transaction is performed. This parameter will remove invalid characters. See list of <u>Removed Characters</u> for more details
SureChargeAmt	Optional	The amount in DDDD.CC format that a merchant charges for processing a debit card transaction
CashBackAmt	Optional	The amount in DDDD.CC format that a cardholder requests for cash back
ExtData	Conditional	Optional, except for <**KeySerialNumber**>, which is required for all non-PIN-less **Sale**, **Auth**, **Force**, and **Return** debit transactions, and <**Items**> and associated nested data elements (required for Concord EFS fuel purchases- see section below). Extended data in XML format. Valid values are: ➤ <**TimeOut**>*TimeOut*</**TimeOut** > for timeout value in seconds (default = 40) ➤ <**TrainingMode**>*TrainingMode*</**TrainingMode**> to process transaction in Training Mode; either **T** or **F** ➤ <**KeySerialNumber**>*KeySerialNumber*</** KeySerialNumber** > for managing DUKPT pin-pads for non-PIN-less debit transactions ➤ <**Force**>*Force*</**Force**> for forcing duplicate transactions to be processed; either **T** or **F**. Note that some processors, including Concord EFS, will not utilize this tag and may still reject a duplicate transaction ➤ <**Items**> Required for Concord EFS fuel purchases. Items included in invoice. Contains one or more <**Item**> elements ▪ <**Item**> Required for Concord EFS fuel transactions of type **Sale** and **Force**. One item in invoice (item details nested within). There may be multiple <**Item**> nested within <**Items**> tag • <**SKU**>*SKU*</**SKU**> SKU number of item • <**UPC**>*UPC*</**UPC**> Required for Concord EFS fuel purchases. The NACS (National Association of Convenience

Stores) product code for fuel purchases. The NACS is an industry standard list that Concord is utilizing. For a list of NACS product codes, please contact EFSnet™ customer support at support@concordefsnet.com or 1-877-852-2637.

- **<Description>**Description**</Description>** Item description

- **<Quantity>**Quantity**</Quantity** Required for Concord EFS fuel purchases. Quantity purchased of item

- **<UnitOfMeasurement>**UnitOfMeasure**</UnitOfMeasurement>** Unit of measurement for item

- **<UnitPrice>**UnitPrice**</UnitPrice>** Required for Concord EFS fuel purchases. Unit price of item

- **<DiscountAmt>**DiscountAmount**</DiscountAmt>** Possible discount amount on item

- **<TaxAmt>**TaxAmt**</TaxAmt>** Possible tax amount on item

- **<TotalAmt>**TotalAmt**</TotalAmt>** Total amount of item

- **<Category>**Category**</Category>** Required for Concord EFS fuel purchases. The specific value **Fuel** to designate fuel purchases

- **<TaxRate>**TaxRate**</TaxRate>** Possible tax rate applied to item

</Item>

</Items>

GLOBAL Interac Specific Tags

➢ <MAC>

- **<TID>TID Value</TID> Add Reversal or KeyChangeRequest.** This   is used for Global Canadian Debit following the INTERAC regulations where the TID or terminal Identification number is configured based on the pin pad used as assigned by the processor. These tags are required by the KeyChangeRequest and AddReversal Trans types for Canadian Debit

- **<PSN>PSN Value</PSN> POS Sequence Number** is the point of sale sequence number which follows a range between values of 001 to 999 and is specifically maintained by our Smart payments Client application that allows for use with the Global Canadian Debit.

- **<Value>MAC Value</Value>** allows for the submission of data specific to Interac/Global Canada based transactions. The Terminal ID is required to be submitted with all the Interac based transactions. This value is obtained from the Global Pin Pad device. This value is also supported in the response field that will contain the MAC key, POS Sequence Number Information and Pin

<table>
<tr>
<td></td>
<td></td>
<td>

Key.

- **<Language> Language Value</Language>** Valid Values are English or French. This value dictates what language is used in facilitating the Canadian debit transaction.

</MAC>

➢   **<AccountType>AccountType Value</AccountType>** Valid Values Checking and Saving (note this is singular) that is required for submission with the MAC related values for Canadian Debit. Please see example Sale transaction for the screen shots.

</td>
</tr>
</table>

PIN-less Debit Transactions

In some cases, debit transactions can actually be processed without the customer's entering a PIN number (a "PIN-less" debit transaction). Essentially, the same information is sent as in a typical PIN-based debit transaction, with the exception of the encrypted PIN-block and key serial number. This transaction type is currently only available with Concord EFS and Global Payments processors.

So, if the processor is not Concord or Global, then **both** the PIN-block and key serial number are required, and without both pieces of data, a transaction will be rejected at the Payment Server. If the designated processor is Concord or Global, then the transaction will be accepted either with **both** pieces of data (interpreted as a PIN-based debit transaction) **or** accepted with **neither** piece of data (interpreted as a PIN-less debit transaction). See Example 3 below.

After the above requirements are met for a transaction, a PIN-less debit transaction will be allowed through the Payment Server. However, it still must have sufficient information to be accepted as a PIN-less transaction only when Concord is the processor. In order for the proper information to be forwarded to Concord for PIN-less debit (and thus for the transaction to be accepted at the processor), the Payment Server must be configured as described below:

Application Id Setup

To process PIN-less debit through Concord, the Application Id sent to Concord must be specified to identify the application in use. Use the following SQL script to change this value in your database:

INSERT INTO [dbo].[AppSetting_T] ([Application_Key], [AppSetting_Key], [AppSetting_Value], [XmlProfile_TXT]) VALUES (8, 'CustomAppName', '**Your Application Name**', '')

In the above script, you must change '**Your Application Name**' to the Application ID value Concord is expecting, which is typically your company name. Follow these steps in order to execute this script:

a) Open Query Analyzer
b) Set the current database to your server database
c) Paste the above script into the query editor and change '**Your Application Name**' to your company name
d) Execute the script and verify its success

The CustomAppName is only sent to Concord for PIN-less debit transactions. If CustomAppName is not specified, then the default Application ID will be sent.

Register Number and Terminal Id Setup

When processing transactions with Concord, the Payment Server will detect that the register number passed from the client-side application matches the Register Number field setup in the merchant account. Once it has made the match, then it will send the corresponding Terminal ID field set up for that Register Number to Concord. When no Terminal ID field is sent to Concord, it defaults to what is set up at the processor (usually Terminal ID "01"). If you are also doing VRU (phone-originated) transactions, a separate Terminal ID field will need to be set up in the Registers of the merchant account and submitted in your request through the Web Service. However, if the merchant will be doing both Internet and VRU transactions at the same time, the Terminal ID value will be required to differentiate between the two. For example, you may set up "01" for Internet and "02" for VRU, and the request sent through the ProcessDebitCard operation, from the merchant's PIN-less Debit application, must send the appropriate Register Number to reflect what Terminal ID should be sent.

Fuel Purchases: Debit Card Use

Debit card processing for fuel purchases is now available, currently through Concord EFS only. This functionality allows for fuel purchases with standard debit cards (Visa, Mastercard, etc). Debit fuel purchases (**TransType**'s **Sale** and **Force**) require item-level purchase information. If all the required information for a certain purchase is not provided, the transaction will be rejected and an error message generated. The main implication for the developer is that additional data must be passed to the gateway in order for fuel purchases to process correctly.

Item-level debit fuel purchase information is passed inside the **<Items>** tag in **ExtData**. Fuel purchases are differentiated at the gateway from other purchases by the **Fuel** designation placed within the <**Category**> tag in item descriptions (see Examples 4 through 6 below). In effect, a transaction will only be treated as a fuel transaction if at least one of the items within **<Items>** is designated as category **Fuel**. See the above chart for details on these and other required XML tags for standard debit card processing on fuel transactions.

Note that PIN information and Key Serial Data must be passed on all debit transactions. This data will *not* be retained after a transaction, so the customer must be present to re-enter the PIN. This is important in the case of a **Force** (PostAuth). See examples 5 and 6 below.

PROCESSEBTCARD

This Web service operation processes EBT card transactions for a merchant. The URL to access this service is:

https://*test.prolificpaymentsolutions.com*/SmartPayments/transact.asmx?op=ProcessEBTCard. Descriptions of the parameters are listed below.

Parameter	Field Attribute	Description
UserName	Required	User name assigned in the payment server
Password	Required	Password for the user name assigned in the payment server
TransType	Required	Type of the EBT card transaction. Valid values are: • **FoodStampSale** to make a purchase on an EBT cardholder's food stamp account • **FoodStampReturn** to credit to an EBT cardholder's food stamp account • **CashBenefitSale** to make a purchase on an EBT cardholder's cash benefit account • **Inquire** to check the balance on an EBT card • **Capture** to settle a single transaction in the current batch; only for terminal-based processors • **CaptureAll** to settle all transactions in the current batch; only for terminal-based processors or host-based processors that support a batch release feature • **Force (Voucher Clear)** to allow a merchant to pass a voucher number which is a reference number on the voucher slip to clear the transaction along with the authorization code obtained via a voice approval. This means that you can perform a pin-less EBT sale with

		the authorization code along with the voucher reference number.
CardNum	Conditional	Required except for **Capture** and **CaptureAll**. EBT card number to process the transaction
ExpDate	Conditional	Required except for **Capture** and **CaptureAll**. EBT card's expiration date in MMYY format
MagData	Optional	Data located on the track 2 of the magnetic strip of the card. Once this field is populated, the transaction will be indicated as *Card-Present* transaction and usually result in a favorable retail discount rate. This parameter will remove invalid characters. See list of Removed Characters for more details The format of the MagData (or Track 2 data) is CardNum=ExpDate followed by the service code and checksum. For example, 36438999960016=05121015432112345678
NameOnCard	Optional	Optional, depending on different merchant processor setup. The cardholder's name as it appears on the card
Amount	Conditional	Required except for **CaptureAll**. The total transaction amount in DDDD.CC format. This amount includes **CashBackAmt** and **SureChargeAmt**
InvNum	Optional	Invoice tracking number. This parameter will remove invalid characters. See list of Removed Characters for more details
PNRef	Conditional	Optional except for **FoodStampReturn** and **Capture**. The reference number assigned by the payment server
Pin	Conditional	Required except for **Capture** and **CaptureAll**. The encrypted pin block returned by the pin-pad. The transaction will fail if an unencrypted pin value is used
RegisterNum	Optional	A number uniquely identifies a register or computer, on which the transaction is performed. This parameter will remove invalid characters. See list of Removed Characters for more details
SureChargeAmt	Optional	The amount in DDDD.CC format that a merchant charges for processing an EBT card transaction
CashBackAmt	Optional	The amount in DDDD.CC format that a cardholder requests for cash back. If used, only good for **TransType** of **CashBenefitSale**
ExtData	Conditional	Optional except for <**KeySerialNumber**>, which is required for **FoodStampSale**, **FoodStampReturn**, **CashBenefitSale**, and **Inquire** with DUKPT pin-pad setup. Extended data in XML format. Valid values are: • <**TimeOut**>*TimeOut*</**TimeOut**> for timeout value in seconds (default = 40) • <**TrainingMode**>*TrainingMode*</**TrainingMode**> to process transaction in Training Mode; either **T** or **F** • <**KeySerialNumber**>*KeySerialNumber*</**KeySerialNumber**> for managing DUKPT pin-pads for EBT transactions • <**Force**>*Force*</**Force**> for forcing duplicate transactions to be processed; either **T** or **F**. Note that some processors, including Concord EFS, will not utilize this tag and may still reject a duplicate

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		transaction

IsCommercialCard

This Web service operation checks whether the card number entered is for a commercial card or not. The URL to access this Web service is:

https://*test.prolificpaymentsolutions.com*/SmartPayments/validate.asmx?op=IsCommercialCard. Please note due to ever-changing card bin-ranges and other factors, not all Commercial/Purchase cards can be definitely determined by this method. Developers should design their applications while keeping this fact in mind. Descriptions of the parameters are listed below.

Parameter	Field Attribute	Description
CardNumber	Required	The number of a credit card

ValidCard

This Web service operation does the validation check on a credit card. It checks the card length based on the card type, performs a mod 10 checksum, and checks the expiration date. The return value could be: 0 – good, 1001 – no card number, 1002 – no expiration date, 1003 – invalid card type, 1004 – invalid card length, 1005 – invalid mod 10 check, 1006 – invalid expiration date. The URL to access this operation is:

https://*test.prolificpaymentsolutions.com*/SmartPayments/validate.asmx?op=ValidCard. Descriptions of the parameters are listed below.

Parameter	Field Attribute	Description
CardNumber	Required	The number of a credit card
ExpDate	Required	The expiration date of a credit card

ValidCardLength

This Web service operation checks for the card length based on the card type. The URL to access this operation is:

https://test.prolificpaymentsolutions.com/SmartPayments/validate.asmx?op=ValidCardL
ength. Descriptions of the parameters are listed below.

Parameter	Field Attribute	Description
CardNumber	Required	The number of a credit card

VALIDEXPDATE

This Web service operation validates the expiration date of a credit card. The URL to
access this operation is:

https://*test.prolificpaymentsolutions.com*/SmartPayments/validate.asmx?op=ValidExpDa
te. Descriptions of the parameters are listed below.

Parameter	Field Attribute	Description
ExpDate	Required	The expiration date of a credit card

VALIDMOD10

This Web service operation validates the credit card by performing a mod 10 checksum
on the card number. The URL to access this operation is:

https://*test.prolificpaymentsolutions.com*/SmartPayments/validate.asmx?op=ValidMod1
0. Descriptions of the parameters are listed below.

Parameter	Field Attribute	Description
CardNumber	Required	The number of a credit card

ADDRECURRINGCREDITCARD

This web service operation allows you to add a customer, a contract and a credit card
payment method all in one call. All parameters marked as required must be
supplied.Optional parameters can be left blank and the default value will be used.
Default values are empty strings for *string type* and 0 for integer type.The URL to access
this web service is:

https://test.prolificpaymentsolutions.com/admin/ws/recurring.asmx?op=AddRecurringC
reditCard

Parameter	Value
Username	Required. The username of the default merchant account user.
Password	Required. The password of the user
Vendor	Required. The numerical Vendor/Merchant Key. This is also known as the RPNum or merchant index number.
CustomerID	Required. A merchant supplied a unique indentifier for a customer.
Customer Name	Required. The customer's name is to be submitted in this field.
FirstName	Optional. The customer's first name.
LastName	Optional. The customer's last name.
Title	Optional. The customer's title.
Department	Optional. The customer' department.
Street1	Optional. The customer's street address 1.
Street2	Optional. The customer's street address 2.
Street3	Optional. The customer's street adddress3.
City	Optional. The customer's city.
StateID	Optional. The customer's 2 character State Code
Province	Optional. The customer's province if it is outside the USA
Zip	Optional. The customer's zip code if in the USA, postal code if outside the USA
CountryID	Optional. The customer's 3 character country code, for example, USA or CAN
Email	Optional. The customer's email address.
Mobile	Optional. The customer's mobile phone.
ContractID	Required. The merchant supplied unique indentifier for the contract.
ContractName	Optional. The contract's name.
BillAmt	Required. The amount to be billed in relation to the contract.
TaxAmt	Optional. The tax amount.
TotalAmt	Required. This is the total amount. BillAmt + TaxAmt = TotalAmt.
StartDate	Required. The start date of the contract.
EndDate	Optional. The end date of the contract. If this date is not given, the contract will continue to run until manually cancelled or suspended by the system due to failure of payment

BillingPeriod	Required. Specifies the Billing Period Type, used in conjunction with BillingInterval to compute the next bill date. This is a case sensitive field so the only valid values are: "DAY", "WEEK", "MONTH", "YEAR"
BillingInterval	Required. Thisis to be used to tell the frequency of billing intervals along with the specified Billing Period. "Once per day" : (Billing Interval = 1 , Billing Period = "DAY") "Once per week" = (Billing Interval = 1, Billing Period = "WEEK") "Once per Month" = (Billing Interval = 1, Billing Period = "MONTH") "Once per Year" = (Billing Interval = 1, Billing Period = "YEAR") "Once per Two Weeks" = (Billing Interval = 14, Billing Period= "DAY") "Twice per Month"= (Billing Interval = 2, Billing Period = "MONTH") "Twice per Year" = (Billing Interval = 2, Billing Period = "YEAR") "Four times Per year" = (Billing Interval = 4, Billing Period = "YEAR") * These are the values that will reflect correctly upon submission to the merchant console and any deviation will not respond to the correct value displayed and recorded in the recurring billing contracts merchant console view.
MaxFailures	Optional. The number of times the system will wait after each retry when a recurring payment fails to process before it puts the contract in suspended mode.
FailureInterval	Optional. Number of days the system will wait after each payment retry when the payment fails.
EmailCustomer	Optional. TRUE/FALSE setting whether to email the customer regarding the status of the recurring payment.
EmailMerchant	Optional. TRUE/FALSE setting whether to email the merchant regarding the status of recurring payment.
EmailCustomerFailure	Optional. TRUE/FALSE setting whether to email the customer when the recurring payment fails.
EmailMerchantFailure	Optional. TRUE/FALSE setting whether to email the merchant when the recurring payemt fails.
CcAccountNum	Required. The customer's credit card number.

CcExpdate	Required. The credit card expiration date.
CcNameOnCard	Optional. The Card Holder's name as it is on the card.
CcStreet	Optional. The Card Holder's billing address
CcZip	Optional. The Card Holder's billing zip code.
ExtData	Optional. Extended Data.

ADDRECURRINGCHECK

This web service allows for adding a customer, a contract and a credit card payment method all in one call.All parameters marked as required must be supplied. Optional parameters can be left blank and the default value will be used.Default values are as follows, empty string for string type and 0 for integer. The URL to access this web service is:

https://test.prolificpaymentsolutions.com/admin/ws/recurring.asmx?op=AddRecurringCheck

Parameter	Value
Username	Required. The username of the admin user.
Password	Required. The password of the admin user
Vendor	Required. The numerical Vendor/Merchant Key. This is also known as the RPNum or merchant index number.
CustomerID	Required. A merchant supplied a unique indentifier for a customer.
Customer Name	Required. The customer's name is to be submitted in this field.
FirstName	Optional. The customer's first name.
LastName	Optional. The customer's last name.
Title	Optional. The customer's title.
Department	Optional. The customer' department.
Street1	Optional. The customer's street address 1.
Street2	Optional. The customer's street address 2.
Street3	Optional. The customer's street adddress3.

City	Optional. The customer's city.
StateID	Optional. The customer's 2 character State Code
Province	Optional. The customer's province if it is outside the USA
Zip	Optional. The customer's zip code if in the USA, postal code if outside the USA
CountryID	Optional. The customer's 3 character country code, for example, USA or CAN
Email	Optional. The customer's email address.
Mobile	Optional. The customer's mobile phone.
ContractID	Required. The merchant supplied unique indentifier for the contract.
ContractName	Optional. The contract's name.
BillAmt	Optional. The amount to be billed in relation to the contract.
TaxAmt	Optional. The tax amount.
TotalAmt	Required. This is the total amount. BillAmt + TaxAmt = TotalAmt.
StartDate	Required. The start date of the contract.
EndDate	Optional. The end date of the contract. If this date is not given, the contract will continue to run until manually cancelled or suspended by the system due to failure of payment
BillingPeriod	Required. Specifies the Billing Period Type, used in conjunction with BillingInterval to compute the next bill date. This is a case sensitive field so the only valid values are: "DAY", "WEEK", "MONTH", "YEAR"
BillingInterval	Required. Thisis to be used to tell the frequency of billing intervals along with the specified Billing Period. "Once per day" : (Billing Interval = 1 , Billing Period = "DAY") "Once per week" = (Billing Interval = 1, Billing Period = "WEEK") "Once per Month" = (Billing Interval = 1, Billing Period = "MONTH") "Once per Year" = (Billing Interval = 1, Billing Period = "YEAR") "Once per Two Weeks" = (Billing Interval = 14, Billing Period= "DAY") "Twice per Month"= (Billing Interval = 2, Billing Period = "MONTH")

	"Twice per Year" = (Billing Interval = 2, Billing Period = "YEAR") "Four times Per year" = (Billing Interval = 4, Billing Period = "YEAR") * These are the values that will reflect correctly upon submission to the merchant console and any deviation will not respond to the correct value displayed and recorded in the recurring billing contracts merchant console view.
MaxFailures	Optional. The number of times the system will wait after each retry when a recurring payment fails to process before it puts the contract in suspended mode.
FailureInterval	Optional. Number of days the system will wait after each payment retry when the payment fails.
EmailCustomer	Optional. TRUE/FALSE setting whether to email the customer regarding the status of the recurring payment.
EmailMerchant	Optional. TRUE/FALSE setting whether to email the merchant regarding the status of recurring payment.
EmailCustomerFailure	Optional. TRUE/FALSE setting whether to email the customer when the recurring payment fails.
EmailMerchantFailure	Optional. TRUE/FALSE setting whether to email the merchant when the recurring payemt fails.
CheckType	Required. Two types of checks whether PERSONAL or BUSINESS.
AccountType	Required. Two types of account whether CHECKING or SAVINGS.
CheckNum	Optional. This is the check number.
MICR	Optional. This is the scanned MICR data of the check.
AccountNum	Required. This is the account number.
TransitNum	Required. This is the transit number.
SS	Optional. Social Security number of the check holder.
DOB	Optional. Date of Birth of the check holder.
BranchCity	Optional. The city of the bank where the branch is located.
DL	Optional. The driver's license number of the check holder
StateCode	Optional. The 2 character State Code of the driver's License of the check holder.
NameOnCheck	Optional. The check holder's name as it is on the check.
ExtData	Optional. Extended Data.

PROCESSCREDITCARD - RECURRING BILLING

This web service operation processes credit card transactions within the recurring billing module. The URL to access this web service is:

https://test.prolificpaymentsolutions.com/admin/ws/recurring.asmx?op=ProcessCreditCard

Parameter	Value
Username	Required. The username of the admin user.
Password	Required. The password of the admin user
Vendor	Required. The numerical Vendor/Merchant Key. This is also known as the RPNum or merchant index number.
CcInfoKey	Required. The numerical Credit Card Info key.
Amount	Required. The amount that will be processed for that transaction.
InvNum	Optional. The associated invoice number.
ExtData	Optional. Extended Data.

PROCESSCHECK – RECURRING BILLING

This web service operation allows for the processing of check transactions within the recurring billing module. The URL to access this Web Service is:

https://test.prolificpaymentsolutions.com/admin/ws/recurring.asmx?op=ProcessCheck

Parameter	Value
Username	Required. The username of the admin user.
Password	Required. The password of the admin user
Vendor	Required. The numerical Vendor/Merchant Key. This is also known as the RPNum or merchant index number.
CheckInfoKey	Required. The numerical Check Payment Info key.
Amount	Required. The amount that will be processed for that transaction.
InvNum	Optional. The associated invoice number.
ExtData	Optional. Extended Data.

MANAGECHECKINFO

This Web Service operation allows for managing check information .The URL to access this Web Service is: https://test.prolificpaymentsolutions.com/admin/ws/recurring.asmx?op=ManageCheckInfo

Parameter	Value
Username	Required. The username of the admin user.
Password	Required. The password of the admin user
Vendor	Required. The numerical Vendor/Merchant Key. This is also known as the RPNum or merchant index number.
TransType	Required. The type of transaction being performed. Valid values are: ADD UPDATE DELETE
CustomerKey	Required. The numerical customer key.
CheckInfoKey	Required for TransType UPDATE and DELETE. The numerical Customer Key
CheckType	Required. Two types of checks whether PERSONAL or BUSINESS.
AccountType	Required. Two types of account whether CHECKING or SAVINGS.
CheckNum	Optional. This is the check number.
MICR	Optional. This is the scanned MICR data of the check.
AccountNum	Required. This is the account number.
TransitNum	Required. This is the transit number.
SS	Optional. Social Security number of the check holder.
DOB	Optional. Date of Birth of the check holder.
BranchCity	Optional. The city of the bank where the branch is located.
DL	Optional. The driver's license number of the check holder
StateCode	Optiional. The 2 character State Code of the driver's license of the check holder, e.g. NY or GA
NameOnCheck	Optional. The check holder's name as it is on the check.
Email	Optional. The customer's email address.
DayPhone	Optional. The customer's day phone.
Street1	Optional. The customer's street address 1.

Street2	Optional. The customer's street address 2.
Street3	Optional. The customer's street adddress3.
City	Optional. The customer's city.
StateID	Optional. The customer's 2 character State Code
Province	Optional. The customer's province if it is outside the USA
PostalCode	Optional. The customer's zip code if in USA , postal code if outside USA
CountryID	Optional. The customer's 3 character country code, for example, USA or CAN
ExtData	Optional. Extended Data.

Parameter	Value
Username	Required. The username of the admin user.
Password	Required. The password of the admin user
TransType	Required. The type of transaction being performed. Valid values are: ADD UPDATE DELETE
Vendor	Required. The numerical Vendor/Merchant Key. This is also known as the RPNum or merchant index number.
CustomerKey	Required. The numerical Customer Key.
CardInfoKey	Required. The numerical credit card info key.
CcAccountNum	Required. The credit card account number.
CcExpDate	Required. The credit card expiration date.
CcNameonCard	Optional. The name of the card holder
CcStreet	Optional. The card holder's billing address.
CcZip	Optional. The card holder's billing zip code.
ExtData	Optional. Extended Data.

MANAGECREDITCARDINFO

This Web Service allows for managing the credit card information. The URL for accessing this Web Service is at:

https://test.prolificpaymentsolutions.com/admin/ws/recurring.asmx?op=ManageCreditCardInfo

MANAGECONTRACT

This web service allows for managing different properties of contracts via integration. This can be accessed by using this URL:

https://test.prolificpaymentsolutions.com/admin/ws/recurring.asmx?op=ManageContract

Parameter	Value
Username	Required. The username of the admin user.
Password	Required. The password of the admin user
TransType	Required. The type of transaction being performed. The valid values are: ADD UPDATE DELETE
Vendor	Required. The numerical Vendor/Merchant Key. This is also known as the RPNum or merchant index number.
CustomerKey	Required. The numerical customer key.
ContractKey	Required for TransType UPDATE and DELETE. The numerical contract key.
PaymentInfoKey	Required for Transtype UPDATE and ADD. The numerical information Key. This is dependent for the PaymentType. If you set the Payment Type to CC then the information that needs to be passed in this field is the CCInfoKey or CardInfoKey. Now if CK was set at the PaymentType, then the information that needs to go in this field is the CheckInfoKey. Please make sure that you are passing the right key based on the PaymentType.
PaymentType	Required for TransType ADD and UPDATE. Type of payment: CC for Credit Card and CK for Check
CustomerID	Required. A merchant supplied a unique indentifier for a customer.
Customer Name	Required. The customer's name is to be submitted in this field.
FirstName	Optional. The customer's first name.

LastName	Optional. The customer's last name.
Title	Optional. The customer's title.
Department	Optional. The customer' department.
Street1	Optional. The customer's street address 1.
Street2	Optional. The customer's street address 2.
Street3	Optional. The customer's street adddress3.
City	Optional. The customer's city.
StateID	Optional. The customer's 2 character State Code
Province	Optional. The customer's province if it is outside the USA
Zip	Optional. The customer's zip code if in the USA, postal code if outside the USA
CountryID	Optional. The customer's 3 character country code, for example, USA or CAN
DayPhone	Optional. The customer's day phone.
NightPhone	Optional.The customer's evening phone.
Fax	Optional. The customer's fax number.
Email	Optional. The customer's email address.
Mobile	Optional. The customer's mobile phone.
ContractID	Required. The merchant supplied unique indentifier for the contract.
ContractName	Optional. The contract's name.
BillAmt	Optional. The amount to be billed in relation to the contract.
TaxAmt	Optional. The tax amount.
TotalAmt	Required. This is the total amount. BillAmt + TaxAmt = TotalAmt.
StartDate	Required. The start date of the contract.
EndDate	Optional. The end date of the contract. If this date is not given, the contract will continue to run until manually cancelled or suspended by the system due to failure of payment
NextBillDt	Required. This is required for TRANSTYPE ADD and UPDATE.
BillingPeriod	Required. Specifies the Billing Period Type, used in conjunction with BillingInterval to

	compute the next bill date. This is a case sensitive field so the only valid values are: "DAY", "WEEK", "MONTH", "YEAR"
BillingInterval	Required. Thisis to be used to tell the frequency of billing intervals along with the specified Billing Period. "Once per day" : (Billing Interval = 1 , Billing Period = "DAY") "Once per week" = (Billing Interval = 1, Billing Period = "WEEK") "Once per Month" = (Billing Interval = 1, Billing Period = "MONTH") "Once per Year" = (Billing Interval = 1, Billing Period = "YEAR") "Once per Two Weeks" = (Billing Interval = 14, Billing Period= "DAY") "Twice per Month"= (Billing Interval = 2, Billing Period = "MONTH") "Twice per Year" = (Billing Interval = 2, Billing Period = "YEAR") "Four times Per year" = (Billing Interval = 4, Billing Period = "YEAR") * These are the values that will reflect correctly upon submission to the merchant console and any deviation will not respond to the correct value displayed and recorded in the recurring billing contracts merchant console view.
MaxFailures	Optional. The number of times the system will wait after each retry when a recurring payment fails to process before it puts the contract in suspended mode.
FailureInterval	Optional. Number of days the system will wait after each payment retry when the payment fails.
EmailCustomer	Optional. TRUE/FALSE setting whether to email the customer regarding the status of the recurring payment.
EmailMerchant	Optional. TRUE/FALSE setting whether to email the merchant regarding the status of recurring payment.
EmailCustomerFailure	Optional. TRUE/FALSE setting whether to email the customer when the recurring payment fails.
EmailMerchantFailure	Optional. TRUE/FALSE setting whether to email the merchant when the recurring payemt fails.
Status	Optional. Status of the contract.
ExtData	Optional. Extended Data.

MANAGECUSTOMER

This webservice allows for the management of customer information. This web service can be accessed by this url:

https://test.prolificpaymentsolutions.com/admin/ws/recurring.asmx?op=ManageCustomer

Parameter	Value
Username	Required. The username of the admin user.
Password	Required. The password of the admin user
TransType	Required. The type of transaction being performed. The valid values are: ADD UPDATE DELETE
Vendor	Required. The numerical Vendor/Merchant Key. This is also known as the RPNum or merchant index number.
CustomerKey	Required. The numerical customer key.
CustomerID	Required. A merchant supplied a unique indentifier for a customer.
Customer Name	Required. The customer's name is to be submitted in this field.
FirstName	Optional. The customer's first name.
LastName	Optional. The customer's last name.
Title	Optional. The customer's title.
Department	Optional. The customer' department.
Street1	Optional. The customer's street address 1.
Street2	Optional. The customer's street address 2.
Street3	Optional. The customer's street adddress3.
City	Optional. The customer's city.
StateID	Optional. The customer's 2 character State Code
Province	Optional. The customer's province if it is outside the USA
Zip	Optional. The customer's zip code if in the USA, postal code if outside the USA
CountryID	Optional. The customer's 3 character country code, for example, USA or CAN

DayPhone	Optional. The customer's day phone.
NightPhone	Optional.The customer's evening phone.
Fax	Optional. The customer's fax number.
Email	Optional. The customer's email address.
Mobile	Optional. The customer's mobile phone.
Status	Optional. Status of the contract.
ExtData	Optional. Extended Data.

MANAGECONTRACTADDDAYSTONEXTBILLDT

This web service allows for adding days to the next billing date and it can be accessed by this URL:

https://test.prolificpaymentsolutions.com/admin/ws/recurring.asmx?op=ManageContractAddDaysToNextBillDt

Parameter	Value
Username	Required. The username of the admin user.
Password	Required. The password of the admin user
Vendor	Required. The numerical Vendor/Merchant Key. This is also known as the RPNum or merchant index number.
CustomerKey	Required. The numerical customer key.
ContractKey	Required for TransType UPDATE and DELETE. The numerical contract key.
NumOfDays	The number of days to be added.
ExtData	Optional. Extended Data.

GETNETWORKID

This web service allows for returning the debit network ID if the debit card number matches any of these network's bin ranges. If there is a match, the card can likely be used as a debit card and processed through the Debit Network.This BIN range is stored in %EPSROOT%\xmlfiles\CardBin.txt which needs to be periodically updated MANUALLY probably every month or so.

This web service can be accessed through this URL:

http:/test.prolificpaymentsolutions.com/smartpayments/validate.asmx?op=GetNetworkID

Note: This was tested with a live Debit card number.

Parameter	Value
Username	Required. The username of the merchant account user.
Password	Required. The password of the merchant account user
CardNumber	Required. The customer's debit card number.

BIN Management Network Table Values

Debit Network	Network ID	Network Authorization Number
Accel	ACL	69
AFFN	AFN	68
Alaska Option	AKO	61
CU24	C24	85
Interlink	ILK	48
Jeanie	JEN	86
Star Northeast (MAC)	MAC	17
Maestro	MAE	40
Nets	NET	83

NYCE	NYC	28
Pulse	PUL	06
Star Southeast	SES	07
Shazam	SHZ	58
Star West	STX	23
TYME	TYM	78

WEB SERVICE RESPONSE FIELD

TRANSACT.ASMX

Response Field	Data Type	Value Description	Remarks
AuthCode	A string value up to 50 characters	Returns the transaction result code from the payment processor	This value can be either an approval code, for approved transactions, or an error code, for declined transactions
ExtData	A string value up to 500 characters	Returns extra data from the processed transaction	The value of ExtData will be in a specific format. The format typically consists of the name of the data field, an equal sign, and then the value for the data field. Multiple data fields are separated with a comma. See the "Web Service ExtData Response Field Data Elements" for full description of data elements that can be returned. The following is an example of the format: *ExtName1=ExtValue1,ExtName2= ExtValue2*
GetAVSResult	A string value up to 1 character	Returns the overall address verification result code from the payment processor	When programmatically validating an AVS Result, this value should ALWAYS be used instead of any formatted response message describing the result
GetAVSResultTXT	A string value up to 25 characters	Returns the formatted response message when address verification is performed	Do NOT use this when programmatically validating a transaction's AVS result; please see GetAVSResult field

GetCommercialCard	A string value representing a Boolean value	Returns the payment processor's response indicator that specifies if the card is a commercial card	This value is only applicable to credit card transactions. The card verification number is typically printed on the back of the card and not embossed on the front. It is used as an extra authentication method for "card not present" transactions. When programmatically validating a CV Result, this value should ALWAYS be used instead of any formatted response message describing the result
GetCVResult	A string value up to 1 character	Returns the card verification result code from the payment processor	This value is only applicable to credit card transactions. The card verification number is typically printed on the back of the card and not embossed on the front. It is used as an extra authentication method for "card not present" transactions. When programmatically validating a CV Result, this value should ALWAYS be used instead of any formatted response message describing the result
GetCVResultTXT	A string value up to 25 characters	Returns the formatted response message when card verification is performed	This value is only applicable to credit card transactions. Do NOT use this when programmatically validating a transaction's CV result; please see GetCVResult field
GetStreetMatchTXT	A string value up to 25 characters	Returns the formatted response message when street number address verification is performed	This value will typically be "Match", for correctly matching the street address, or "No Match", for an incorrect street address
GetZipMatchTXT	A string value up to 25 characters	Returns the formatted response message when zip code address verification is performed	This value will typically be "Match", for correctly matching the zip code, or "No Match", for an incorrect zip code
HostCode	A string value up to 30 characters	Typically returns a number which uniquely identifies the transaction in the payment processor	This value may not be returned for all payment processors
Message	A string value up to 50 characters	Returns a formatted response message concerning the processed transaction	This value will typically be "APPROVAL", for approved transactions, or an error message, for declined transactions. Do NOT use this when programmatically validating a transaction's result; please see Result field below
Message1	A string value up to 50 characters	Returns an extra formatted response message giving more	The Payment Server will only populate this field when there is

		information about the processed transaction	applicable information from the payment processor to return
Message2	A string value up to 50 characters	Returns an extra formatted response message giving more information about the processed transaction	The Payment Server will only populate this field when there is applicable information from the payment processor to return
PNRef	A string value representing a signed 32-bit integer	Returns a number which uniquely identifies the transaction in the payment gateway	
RespMSG	A string value up to 50 characters	Returns the response message concerning the processed transaction	This value is typically either Approved or Declined. Do NOT use this when programmatically validating a transaction's result; please see Result field below
Result	A string value representing a signed 32-bit integer	Returns the transaction result code from the payment gateway which signifies the result of the transaction (i.e. approved, decline, etc.)	When programmatically validating a transaction's result, this value should ALWAYS be used instead of any response message describing the result. See the "Result Response Fields Definitions" section for a full list of result values and descriptions

TRANSACT.ASMX WEB SERVICE EXTDATA RESPONSE FIELD DATA ELEMENTS

Data Element Name	Value Description	Remarks
BatchNum	Returns the current batch number, returned by the payment processor, for transactions, settlement, and batch inquiries	Not all payment processors support returning this data element
CardType	Returns the credit card type (VISA, MASTERCARD, etc), payment method (Debit, EBT, or EGC) for card-based payments	This value is not returned for Check/ACH payments
InvNum	Returns the same invoice number for the transaction that was originally sent in the request to the Payment Server	

TRXDETAIL.ASMX

Response Field	Data Type	Value Description	Remarks
Account_Type_CH	A string value up to 10 characters	Returns the card type of the transaction, e.g. VISA, Diners, EBT	
AccountNum_VC	A string value up to 200 characters	Returns the check account number	This field will be masked out with asterisk (*) characters except for the last 4 digits if the System Security Level of the user is set to 1
Acct_Num_CH	A string value up to 200 characters	Returns credit card number	This field will be masked out with asterisk (*) characters except for the last 4 digits if the System Security Level of the user is set to 1
Amount_MN	A string value representing a signed 64-bit real number	Returns the check's total amount	
Approval_Code_CH	A string value up to 50 characters	Returns the response code from the payment processor	
Auth_Amt_MN	A string value representing a signed 64-bit real number	Returns the authorized amount of a card transaction	
Authorization	A string value representing a signed 64-bit real number	Returns the dollar amount of all Authorization (PreAuth) transactions	
Authorization_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all Authorization (PreAuth) transactions	
AVS_Resp_CH	A string value up to 1 character	Returns the address verification result code from the payment processor	
AVS_Resp_Txt_VC	A string value up to 25 characters	Returns the formatted response message when address verification is performed	
Batch_Number	A string value up to 10 characters	Returns the batch number for the transaction that was returned by the payment processor	Not all payment processors support returning this data element
Capture	A string value representing a signed 64-bit real number	Returns the dollar amount of all Capture transactions	This value will always return "0"
Capture_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all Capture transactions	This value will always return "0"
Card_Info_Key	A string value representing a signed 32-bit integer	Returns the primary key of the CC_Info_T table in the	

		database	
Cash_Back_Amt_MN	A string value representing a signed 64-bit real number	Returns the cash back amount for a debit or EBT transaction	
CheckNum_CH	A string value up to 10 characters	Returns the check number	
Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all transactions	
CustomerID	A string value up to 50 characters	Returns the Customer ID of a customer to which the transaction belongs to	
CV_Resp_CH	A string value up to 1 character	Returns the card verification result code from the payment processor	
CV_Resp_Txt_VC	A string value up to 25 characters	Returns the formatted response message when card verification is performed	
Date_DT	A string value representing a date and time	Returns the date on which the transaction is first made	
ERROR	A string value up to 200 characters	Returns an error message when a problem occurs during the transaction processing	
Exp_CH	A string value up to 10 characters	Returns the credit card expiration date	
ForceCapture	A string value representing a signed 64-bit real number	Returns the dollar amount of all ForceCapture (ForceAuth) transactions	
ForceCapture_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all ForceCapture (ForceAuth) transactions	
Host_Date_CH	A string value up to 10 characters	Returns the payment processor's date on which the transaction is performed	
Host_Ref_Num_CH	A string value up to 30 characters	Returns a number which uniquely identifies the transaction for the payment processor	
Host_Time_CH	A string value up to 10 characters	Returns the payment processor's time at which the transaction was performed	
Invoice_ID	A string value up to 100 characters	Returns the transaction's Invoice number	
IP_VC	A string value up to 15 characters	Returns the IP address of the client machine from which the transaction was processed	

Last_Update_DT	A string value representing a date and time	Returns the date and time on which the transaction is last modified	
Manual	A string value representing a Boolean value	Returns the card was swiped or not	
Merchant_Key	A string value representing a signed 32-bit integer	Returns a number which uniquely identifies a merchant	
Name_on_Card_VC	A string value up to 25 characters	Returns the name of the cardholder	
NameOnCheck_VC	A string value up to 25 characters	Returns the check payer's name on the check	
Orig_TRX_HD_Key	A string value representing a signed 32-bit integer	Returns the TRX_HD_Key on which the current transaction is based	
Payment_Type_ID	A string value up to 10 characters	Returns the payment type, e.g. ECHECK	
PostAuth	A string value representing a signed 64-bit real number	Returns the dollar amount of all PostAuth transactions	
PostAuth_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all PostAuth transactions	
Processor_ID	A string value up to 10 characters	Returns the name the payment processor, e.g. Vital	
Receipt	A string value representing a signed 64-bit real number	Returns the dollar amount of all transactions with a Receipt	This value will always return "0"
Receipt_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all transactions with a Receipt	This value will always return "0"
Ref_Number_CH	A string	Not currently used	This field is not the unique transaction identifier (also called PNRef) of the Payment Server. See the field TRX_HD_Key for the PNRef value
Register_Number_CH	A string value up to 10 characters	Returns the register number of a transaction	
RepeatSale	A string value representing a signed 64-bit real number	Returns the dollar amount of all RepeatSale (Recurring Billing/Installment) transactions	
RepeatSale_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all RepeatSale (Recurring Billing/Installment) transactions	
Reseller_Key	A string value representing a signed 32-bit integer	Returns the primary key of the Reseller_T table in the	

		database	
Result_CH	A string value up to 50 characters	Returns the transaction processing result, e.g. 0, 12. "0" for approval, "12" for decline	
Result_Msg_VC	A string value up to 50 characters	Returns the check transaction's processing result	
Result_Msg1_VC	A string value up to 50 characters	Returns an extra formatted response message giving more information about the processed transaction	
Result_Msg2_VC	A string value up to 50 characters	Returns an extra formatted response message giving more information about the processed transaction	
Result_Txt_VC	A string value up to 150 characters	Returns the text message of either approval or decline for the transaction processing result	
Return	A string value representing a signed 64-bit real number	Returns the dollar amount of all Return (Credit) transactions	
Return_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all Return (Credit) transactions	
Sale	A string value representing a signed 64-bit real number	Returns the dollar amount of all Sale transactions	
Sale_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all Sale transactions	
Settle_Date_DT	A string value representing a date and time	Returns the date on which the transaction is settled	
Settle_Flag_CH	A string value representing a Boolean value	Returns if the transaction is settled or not	
StateCode_CH	A string value up to 10 characters	Returns the state code	
Street_CH	A string value up to 25 characters	Returns the billing street address of the credit card	
SureCharge_Amt_MN	A string value representing a signed 64-bit real number	Returns the sure charge amount of a transaction	
Tip_Amt_MN	A string value representing a signed 64-bit real number	Returns the tip amount of a transaction	
Trans_Type_ID	A string value up to 20 characters	Returns the transaction type, e.g. Sale, Credit	
Transport_Method	A string	Returns the Transportation Method	Only for use with Dial-up transactions

Transport_EndPoint	A string	Returns the Transportation's Ending Destination	Only for use with Dial-up transactions
TransitNum_VC	A string value up to 200 characters	Returns the transit/routing number	This field will be masked out with asterisk (*) characters except for the last 4 digits if the System Security Level of the user is set to 1
TRX_Card_Key	A string value representing a signed 32-bit integer	Returns the primary key of the TRX_Card_T table in the database	
TRX_Check_Key	A string value representing a signed 32-bit integer	Returns the primary key of the TRX_Check_T table in the database	
TRX_HD_Key	A string value representing a signed 32-bit integer	Returns the primary key of the TRX_Header_T table in the database	This field is the unique transaction identifier (also called PNRef) of the Payment Server. Use its value when submitting transactions based on a previous transaction (i.e. Voids) through the Transact.asmx Web Service
TRX_Settle_Key	A string value representing a signed 32-bit integer	Returns the primary key of the TRX_Settle_T table in the database	
TRX_Settle_Msg_VC	A string value up to 25 characters	Returns the transaction's settlement message	
Type_CH	A string value up to 10 characters	Returns the credit card type, e.g. VISA, MASTERCARD	
User_Name_VC	A string value up to 25 characters	Returns the username, under which the transactions were made	
Void_Flag_CH	A string value representing a Boolean value	Returns the transaction is voided or not	
Zip_CH	A string value up to 10 characters	Returns the billing zip code of the credit card	
Auth_Amt_MN	A string value representing a signed 64-bit real number	Returns the authorized amount of a card transaction	
Authorization	A string value representing a signed 64-bit real number	Returns the dollar amount of all Authorization (PreAuth) transactions	
Authorization_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all Authorization (PreAuth) transactions	
AVS_Resp_CH	A string value up to 1	Returns the address	

	character	verification result code from the payment processor	
AVS_Resp_Txt_VC	A string value up to 25 characters	Returns the formatted response message when address verification is performed	
Batch_Number	A string value up to 10 characters	Returns the batch number for the transaction that was returned by the payment processor	Not all payment processors support returning this data element
Capture	A string value representing a signed 64-bit real number	Returns the dollar amount of all Capture transactions	This value will always return "0"
Capture_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all Capture transactions	This value will always return "0"
Card_Info_Key	A string value representing a signed 32-bit integer	Returns the primary key of the CC_Info_T table in the database	
Cash_Back_Amt_MN	A string value representing a signed 64-bit real number	Returns the cash back amount for a debit or EBT transaction	
CheckNum_CH	A string value up to 10 characters	Returns the check number	
Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all transactions	
CustomerID	A string value up to 50 characters	Returns the Customer ID of a customer to which the transaction belongs to	
CV_Resp_CH	A string value up to 1 character	Returns the card verification result code from the payment processor	
CV_Resp_Txt_VC	A string value up to 25 characters	Returns the formatted response message when card verification is performed	
Date_DT	A string value representing a date and time	Returns the date on which the transaction is first made	
ERROR	A string value up to 200 characters	Returns an error message when a problem occurs during the transaction processing	
Exp_CH	A string value up to 10 characters	Returns the credit card expiration date	
ForceCapture	A string value representing a signed 64-bit real number	Returns the dollar amount of all ForceCapture (ForceAuth) transactions	
ForceCapture_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all ForceCapture (ForceAuth) transactions	

Host_Date_CH	A string value up to 10 characters	Returns the payment processor's date on which the transaction is performed	
Host_Ref_Num_CH	A string value up to 30 characters	Returns a number which uniquely identifies the transaction for the payment processor	
Host_Time_CH	A string value up to 10 characters	Returns the payment processor's time at which the transaction was performed	
Invoice_ID	A string value up to 100 characters	Returns the transaction's Invoice number	
IP_VC	A string value up to 15 characters	Returns the IP address of the client machine from which the transaction was processed	
Last_Update_DT	A string value representing a date and time	Returns the date and time on which the transaction is last modified	
Manual	A string value representing a Boolean value	Returns the card was swiped or not	
Merchant_Key	A string value representing a signed 32-bit integer	Returns a number which uniquely identifies a merchant	
Name_on_Card_VC	A string value up to 25 characters	Returns the name of the cardholder	
NameOnCheck_VC	A string value up to 25 characters	Returns the check payer's name on the check	
Orig_TRX_HD_Key	A string value representing a signed 32-bit integer	Returns the TRX_HD_Key on which the current transaction is based	
Payment_Type_ID	A string value up to 10 characters	Returns the payment type, e.g. ECHECK	
PostAuth	A string value representing a signed 64-bit real number	Returns the dollar amount of all PostAuth transactions	
PostAuth_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all PostAuth transactions	
Processor_ID	A string value up to 10 characters	Returns the name the payment processor, e.g. Vital	
Receipt	A string value representing a signed 64-bit real number	Returns the dollar amount of all transactions with a Receipt	This value will always return "0"
Receipt_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all transactions with a Receipt	This value will always return "0"
Ref_Number_CH	A string	Not currently used	This field is not the unique transaction

			identifier (also called PNRef) of the Payment Server. See the field TRX_HD_Key for the PNRef value
Register_Number_CH	A string value up to 10 characters	Returns the register number of a transaction	
RepeatSale	A string value representing a signed 64-bit real number	Returns the dollar amount of all RepeatSale (Recurring Billing/Installment) transactions	
RepeatSale_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all RepeatSale (Recurring Billing/Installment) transactions	
Reseller_Key	A string value representing a signed 32-bit integer	Returns the primary key of the Reseller_T table in the database	
Result_CH	A string value up to 50 characters	Returns the transaction processing result, e.g. 0, 12. "0" for approval, "12" for decline	
Result_Msg_VC	A string value up to 50 characters	Returns the check transaction's processing result	
Result_Msg1_VC	A string value up to 50 characters	Returns an extra formatted response message giving more information about the processed transaction	
Result_Msg2_VC	A string value up to 50 characters	Returns an extra formatted response message giving more information about the processed transaction	
Result_Txt_VC	A string value up to 150 characters	Returns the text message of either approval or decline for the transaction processing result	
Return	A string value representing a signed 64-bit real number	Returns the dollar amount of all Return (Credit) transactions	
Return_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all Return (Credit) transactions	
Sale	A string value representing a signed 64-bit real number	Returns the dollar amount of all Sale transactions	
Sale_Cnt	A string value representing a signed 32-bit integer	Returns the transaction count of all Sale transactions	
Settle_Date_DT	A string value representing a	Returns the date on which	

		date and time	the transaction is settled	
Settle_Flag_CH	A string value representing a Boolean value	Returns if the transaction is settled or not	
StateCode_CH	A string value up to 10 characters	Returns the state code	
Street_CH	A string value up to 25 characters	Returns the billing street address of the credit card	
SureCharge_Amt_MN	A string value representing a signed 64-bit real number	Returns the sure charge amount of a transaction	
Tip_Amt_MN	A string value representing a signed 64-bit real number	Returns the tip amount of a transaction	
Total_Amt_MN	A string value representing a signed 64-bit real number	Returns the total amount of a transaction	
Trans_Type_ID	A string value up to 20 characters	Returns the transaction type, e.g. Sale, Credit	
Transport_Method	A string	Returns the Transportation Method	Only for use with Dial-up transactions
Transport_EndPoint	A string	Returns the Transportation's Ending Destination	Only for use with Dial-up transactions
TransitNum_VC	A string value up to 200 characters	Returns the transit/routing number	This field will be masked out with asterisk (*) characters except for the last 4 digits if the System Security Level of the user is set to 1
TRX_Card_Key	A string value representing a signed 32-bit integer	Returns the primary key of the TRX_Card_T table in the database	
TRX_Check_Key	A string value representing a signed 32-bit integer	Returns the primary key of the TRX_Check_T table in the database	
TRX_HD_Key	A string value representing a signed 32-bit integer	Returns the primary key of the TRX_Header_T table in the database	This field is the unique transaction identifier (also called PNRef) of the Payment Server. Use its value when submitting transactions based on a previous transaction (i.e. Voids) through the Transact.asmx Web Service
TRX_Settle_Key	A string value representing a signed 32-bit integer	Returns the primary key of the TRX_Settle_T table in the database	
TRX_Settle_Msg_VC	A string value up to 25 characters	Returns the transaction's settlement message	

Type_CH	A string value up to 10 characters	Returns the credit card type, e.g. VISA, MASTERCARD	
User_Name_VC	A string value up to 25 characters	Returns the username, under which the transactions were made	
Void_Flag_CH	A string value representing a Boolean value	Returns the transaction is voided or not	
Zip_CH	A string value up to 10 characters	Returns the billing zip code of the credit card	

RESPONSE VALUES

RESULT RESPONSE FIELD DEFINITIONS (ERROR CODES)

The list below contains result codes returned in the Result response field of the XMLPayResponse when using a transaction processing Transact.asmx web service operation (i.e. ProcessCreditCard, ProcessCheck, etc). A decline returned by the payment processor for this response field is value twelve (12) or thirteen (13). An approval is value zero (0). Any other value is an error code, which is returned by the payment gateway and not by the payment processor. Please note that when programmatically validating a transaction's result, this value should be used instead of any response message describing the result. I.e. do *not* use RespMSG or Message response fields, as these values may vary. Please note that this list is subject to change without prior notice.

Value	Description
-100	Transaction NOT Processed; Generic Host Error
0	Approved
1	User Authentication Failed
2	Invalid Transaction
3	Invalid Transaction Type
4	Invalid Amount
5	Invalid Merchant Information
7	Field Format Error
8	Not a Transaction Server
9	Invalid Parameter Stream

10	Too Many Line Items
11	Client Timeout Waiting for Response
12	Decline
13	Referral
14	Transaction Type Not Supported In This Version
19	Original Transaction ID Not Found
20	Customer Reference Number Not Found
22	Invalid ABA Number
23	Invalid Account Number
24	Invalid Expiration Date
25	Transaction Type Not Supported by Host
26	Invalid Reference Number
27	Invalid Receipt Information
28	Invalid Check Holder Name
29	Invalid Check Number
30	Check DL Verification Requires DL State
40	Transaction did not connect (to NCN because SecureNCIS is not running on the web server)
50	Insufficient Funds Available
99	General Error
100	Invalid Transaction Returned from Host
101	Timeout Value too Small or Invalid Time Out Value
102	Processor Not Available
103	Error Reading Response from Host
104	Timeout waiting for Processor Response
105	Credit Error
106	Host Not Available
107	Duplicate Suppression Timeout
108	Void Error
109	Timeout Waiting for Host Response
110	Duplicate Transaction

111	Capture Error
112	Failed AVS Check
113	Cannot Exceed Sales Cap
1000	Generic Host Error
1001	Invalid Login
1002	Insufficient Privilege or Invalid Amount
1003	Invalid Login Blocked
1004	Invalid Login Deactivated
1005	Transaction Type Not Allowed
1006	Unsupported Processor
1007	Invalid Request Message
1008	Invalid Version
1010	Payment Type Not Supported
1011	Error Starting Transaction
1012	Error Finishing Transaction
1013	Error Checking Duplicate
1014	No Records To Settle (in the current batch)
1015	No Records To Process (in the current batch)

AVS RESPONSE CODES

The following table contains the possible response values returned for address verification (AVS).

Note: If the response returned is blank for this specific field tag, there is a chance that your processor does not support these AVS codes.

Value	Description
X	Exact: Address and nine-digit Zip match
Y	Yes: Address and five-digit Zip match

A	Address: Address matches, Zip does not
Z	5-digit Zip: 5-digit Zip matches, address doesn't
W	Whole Zip: 9-digit Zip matches, address doesn't
N	No: Neither address nor Zip matches
U	Unavailable: Address information not available
G	Unavailable: Address information not available for international transaction
R	Retry: System unavailable or time-out
E	Error: Transaction unintelligible for AVS or edit error found in the message that prevents AVS from being performed
S	Not Supported: Issuer doesn't support AVS service
B	* Street Match: Street addresses match for international transaction, but postal code doesn't
C	* Street Address: Street addresses and postal code not verified for international transaction
D	* Match: Street addresses and postal codes match for international transaction
I	* Not Verified: Address Information not verified for International transaction
M	* Match: Street addresses and postal codes match for international transaction
P	* Postal Match: Postal codes match for international transaction, but street address doesn't
0	** No response sent
5	Invalid AVS response

* These values are Visa specific.

** These values are returned by the Payment Server and not the processor.

CV RESPONSE CODES

The following table contains the possible response values returned for a CVV2/CVC2/CID check.

Note: If the response returned is blank for this specific field tag, there is a chance that your processor does not support these CVV response codes.

Value	Description
M	CVV2/CVC2/CID Match
N	CVV2/CVC2/CID No Match
P	Not Processed
S	Issuer indicates that the CV data should be present on the card, but the merchant has indicated that the CV data is not present on the card.
U	Unknown / Issuer has not certified for CV or issuer has not provided Visa/MasterCard with the CV encryption keys.
X	Server Provider did not respond

VALID PARAMETER INPUT CHARACTERS

The table below displays all allowable characters (unless otherwise noted) that are accepted by the Payment Server. Characters are displayed in Courier New font. All other characters may cause undesirable results.

TABLE 1. VALID DATA CHARACTERS

DEC	HEX	Character	DEC	HEX	Character	DEC	HEX	Character
32	20	Space	63	3F	?	96	60	`
33	21	!	64	40	@	97	61	a
34	22	"	65	41	A	98	62	b
35	23	#	66	42	B	99	63	c
36	24	$	67	43	C	100	64	d
37	25	%	68	44	D	101	65	e
38	26	&	69	45	E	102	66	f
39	27	'	70	46	F	103	67	g
40	28	(	71	47	G	104	68	h
41	29	)	72	48	H	105	69	i
42	2A	*	73	49	I	106	6A	j
43	2B	+	74	4A	J	107	6B	k
44	2C	,	75	4B	K	108	6C	l
45	2D	-	76	4C	L	109	6D	m
46	2E	.	77	4D	M	110	6E	n
47	2F	/	78	4E	N	111	6F	o
48	30	0	79	4F	O	112	70	p
49	31	1	80	50	P	113	71	q

50	32	2	81	51	Q	114	72	r
51	33	3	82	52	R	115	73	s
52	34	4	83	53	S	116	74	t
53	35	5	84	54	T	117	75	u
54	36	6	85	55	U	118	76	v
55	37	7	86	56	V	119	77	w
56	38	8	87	57	W	120	78	x
57	39	9	88	58	X	121	79	y
58	3A	:	89	59	Y	122	7A	z
59	3B	;	90	5A	Z	123	7B	{
60	3C	<	92	5C	\	124	7C	|
61	3D	=	94	5E	^	125	7D	}
62	3E	>	95	5F	_	126	7E	~

CHARACTER REMOVAL

The table below displays all acceptable characters that must be removed by the Payment Server before submitting information to the Web Service operations. See each input parameter for each Web Service operation in order to know which input parameters will have these characters removed. This character removal ensures that the Payment Servers' internal XML parsers can properly read the information of the Web Service operation. Characters in the table are displayed in Courier New font.

Many XML Parsers will encode these characters for you. In this case, the characters *will not* be converted back to their proper values by the Payment Server; they will be taken literally. Also, if you pass the encoded character through an input parameter that removes the characters listed in the table below, then certain characters may be removed (see examples below). However, if you are not using a parser, or if the parser does not handle this encoding, then the characters in the table listed below may still be removed, depending on the input parameter for the Web Service operation you are using.

TABLE 2. XML CHARACTER REMOVAL

Character	XML Parser Encoding
<	<
>	>
&	&
'	'
"	"