



# PathwayLINK – Recurring Billing

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## Overview

The purpose of this document is to facilitate Point-of-Sale (POS) developers integrating directly with T-Gate's PathwayLINK Payment Gateway using the following integration methods:

- .NET Web Services
- HTTPS POST
- HTTPS GET
- SOAP

## Testing

A test or live merchant account with T-Gate is required to successfully process transactions. To acquire a test account, contact T-Gate's Developer Support Department at [developersupport@tgatepayments.com](mailto:developersupport@tgatepayments.com).

Testing can be performed with the following test credit cards:

Card Type	Number
MasterCard	5439750001500347
Visa	4005550000000019
Discover	6001111111111117
Diners	36999999999999
AMEX	374255312721002

If you will be implementing swiped, card-present transactions (Credit, Debit, EBT, Gift Cards), please send a request to [developersupport@tgatepayments.com](mailto:developersupport@tgatepayments.com), and a set of test cards will be shipped to you.

### Notes on Testing:

Debit Transactions for PIN based debit will require an encryption scheme injected pin pad by a specific processor and either a test plastic card or a live card for testing. This is required because all true debit transactions need to be swiped only accompanied by a personal identification number (PIN).

## Web Services Functionality

There are five public test and documentation .asmx pages available to integrators. These pages contain online documentation and a testing form for each operation. During integration, it may be helpful to process sample transactions using the test forms to get a feel of how the various operations work or to troubleshoot integration problems. The forms that are available are as follows:

Recurring Billing: <https://gateway.itstgate.com/admin/ws/recurring.asmx>

### Recurring Billing

The following Recurring Billing functionality is currently supported by the PathwayLINK Payment Gateway:

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- [AddRecurringCheck](#)- Allows check information to be programmatically stored through web services for recurring billing.
- [AddRecurringCreditCard](#) -Allows customer information to be programmatically stored through web services for recurring billing.
- [\\*ProcessCreditCard](#) – Allows for processing credit card transactions in recurring billing.
- [\\*ProcessCheck](#) – Allows for processing ACH/ check transactions 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 existing contracts for updates and modifications.
- [ManageCustomer](#) – Allows for management of existing customers in the recurring billing web service.
- [ManageContractAddDaysToNextBillDt](#) – Allows for modification of next billing date for recurring billing contracts.

## ***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

<http://localhost/admin/ws/recurring.aspx?op=AddRecurringCreditCard>

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

<b>Street3</b>	Optional. The customer's street address3.
<b>City</b>	Optional. The customer's city.
<b>StateID</b>	Optional. The customer's 2 character State Code
<b>Province</b>	Optional. The customer's province if it is outside the USA
<b>Zip</b>	Optional. The customer's zip code if in the USA, postal code if outside the USA
<b>CountryID</b>	Optional. The customer's 3 character country code, for example, USA or CAN
<b>Email</b>	Optional. The customer's email address.
<b>Mobile</b>	Optional. The customer's mobile phone.
<b>ContractID</b>	Required. The merchant supplied unique identifier for the contract.
<b>ContractName</b>	Optional. The contract's name.
<b>BillAmt</b>	Required. The amount to be billed in relation to the contract.
<b>TaxAmt</b>	Optional. The tax amount.
<b>TotalAmt</b>	Required. This is the total amount. BillAmt + TaxAmt = TotalAmt.
<b>StartDate</b>	Required. The start date of the contract.
<b>EndDate</b>	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
<b>BillingPeriod</b>	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"
<b>BillingInterval</b>	Required. This is 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.
<b>MaxFailures</b>	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.
<b>FailureInterval</b>	Optional. Number of days the system will wait after each payment retry when the payment fails.
<b>EmailCustomer</b>	Optional. TRUE/FALSE setting whether to email the customer regarding the status of the recurring payment.
<b>EmailMerchant</b>	Optional. TRUE/FALSE setting whether to email the merchant regarding the status of recurring payment.
<b>EmailCustomerFailure</b>	Optional. TRUE/FALSE setting whether to email the customer when the recurring payment fails.
<b>EmailMerchantFailure</b>	Optional. TRUE/FALSE setting whether to email the merchant when the recurring payment fails.
<b>CcAccountNum</b>	Required. The customer's credit card number.
<b>CcExpdate</b>	Required. The credit card expiration date.
<b>CcNameOnCard</b>	Optional. The Card Holder's name as it is on the card.
<b>CcStreet</b>	Optional. The Card Holder's billing address
<b>CcZip</b>	Optional. The Card Holder's billing zip code.
<b>ExtData</b>	Optional. Extended Data.

**Example**

Parameter	Value
Username:	vital
Password:	1234
Vendor:	1
CustomerID:	44444
CustomerName:	Fitness Forever
FirstName:	John
LastName:	Smith
Title:	Sales Director
Department:	Sales
Street1:	123 Main Street
Street2:	
Street3:	
City:	Redmond
StateID:	WA

Email:	JSmith@hotmail.com
DayPhone:	
NightPhone:	
Fax:	
Mobile:	
ContractID:	22222
ContractName:	Fitness 4ever
BillAmt:	19.00
TaxAmt:	1.00
TotalAmt:	20.00
StartDate:	02/13/07
EndDate:	04/13/07
BillingPeriod:	DAY
BillingInterval:	2
MaxFailures:	1
FailureInterval:	1
EmailCustomer:	TRUE
EmailMerchant:	TRUE
CcAccountNum:	5439750001500347
CcExpDate:	1208
CcNameOnCard:	Andy Chau
CcStreet:	
CcZip:	
ExtData:	

[Invoke](#)

## Response



```

<?xml version="1.0" encoding="utf-8" ?>
= <RecurringResult xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://
  www.namespaceuri.com/Admin/ws">
  <CustomerKey>11</CustomerKey>
  <ContractKey>7</ContractKey>
  <CcInfoKey>26607</CcInfoKey>
  <CheckInfoKey />
  <code>OK</code>
  <error>OK</error>
  <Partner>100</Partner>
  <Vendor>1</Vendor>
  <Username>vital</Username>
  </RecurringResult>

```

## 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: <http://localhost/admin/ws/recurring.asmx?op=AddRecurringCheck>

Parameter	Value
<b>Username</b>	Required. The username of the admin user.
<b>Password</b>	Required. The password of the admin user
<b>Vendor</b>	Required. The numerical Vendor/Merchant Key. This is also known as the RPNum or merchant index number.
<b>CustomerID</b>	Required. A merchant supplied a unique identifier for a customer.
<b>Customer Name</b>	Required. The customer's name is to be submitted in this field.
<b>FirstName</b>	Optional. The customer's first name.
<b>LastName</b>	Optional. The customer's last name.
<b>Title</b>	Optional. The customer's title.
<b>Department</b>	Optional. The customer's department.
<b>Street1</b>	Optional. The customer's street address 1.
<b>Street2</b>	Optional. The customer's street address 2.
<b>Street3</b>	Optional. The customer's street address3.
<b>City</b>	Optional. The customer's city.
<b>StateID</b>	Optional. The customer's 2 character State Code
<b>Province</b>	Optional. The customer's province if it is outside the USA

<b>Zip</b>	Optional. The customer's zip code if in the USA, postal code if outside the USA
<b>CountryID</b>	Optional. The customer's 3 character country code, for example, USA or CAN
<b>Email</b>	Optional. The customer's email address.
<b>Mobile</b>	Optional. The customer's mobile phone.
<b>ContractID</b>	Required. The merchant supplied unique identifier for the contract.
<b>ContractName</b>	Optional. The contract's name.
<b>BillAmt</b>	Optional. The amount to be billed in relation to the contract.
<b>TaxAmt</b>	Optional. The tax amount.
<b>TotalAmt</b>	Required. This is the total amount. BillAmt + TaxAmt = TotalAmt.
<b>StartDate</b>	Required. The start date of the contract.
<b>EndDate</b>	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
<b>BillingPeriod</b>	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"
<b>BillingInterval</b>	Required. This is 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.
<b>MaxFailures</b>	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.
<b>FailureInterval</b>	Optional. Number of days the system will wait after each payment retry when the payment fails.
<b>EmailCustomer</b>	Optional. TRUE/FALSE setting whether to email the customer regarding the status of the recurring payment.
<b>EmailMerchant</b>	Optional. TRUE/FALSE setting whether to email the merchant regarding the status of recurring payment.
<b>EmailCustomerFailure</b>	Optional. TRUE/FALSE setting whether to email the customer when the recurring payment fails.
<b>EmailMerchantFailure</b>	Optional. TRUE/FALSE setting whether to email the merchant when the recurring payment fails.
<b>CheckType</b>	Required. Two types of checks whether PERSONAL or BUSINESS.
<b>AccountType</b>	Required. Two types of account whether CHECKING or SAVINGS.
<b>CheckNum</b>	Optional. This is the check number.
<b>MICR</b>	Optional. This is the scanned MICR data of the check.
<b>AccountNum</b>	Required. This is the account number.
<b>TransitNum</b>	Required. This is the transit number.
<b>SS</b>	Optional. Social Security number of the check holder.
<b>DOB</b>	Optional. Date of Birth of the check holder.
<b>BranchCity</b>	Optional. The city of the bank where the branch is located.
<b>DL</b>	Optional. The driver's license number of the check holder
<b>StateCode</b>	Optional. The 2 character State Code of the driver's License of the check holder.
<b>NameOnCheck</b>	Optional. The check holder's name as it is on the check.
<b>ExtData</b>	Optional. Extended Data.

## Example

Parameter	Value
Username:	<input type="text" value="ncn1"/>
Password:	<input type="text" value="1234"/>
Vendor:	<input type="text" value="41"/>
CustomerID:	<input type="text" value="2929292"/>
CustomerName:	<input type="text" value="Fitness Land"/>
FirstName:	<input type="text" value="John"/>
LastName:	<input type="text" value="Jones"/>
Title:	<input type="text" value="Sales Manager"/>
Department:	<input type="text" value="Sales"/>
Street1:	<input type="text" value="123 Main Street"/>
Street2:	<input type="text"/>
Street3:	<input type="text"/>
City:	<input type="text" value="Atlanta"/>
StateID:	<input type="text" value="GA"/>
Province:	<input type="text"/>

PostalCode:	41344
CountryID:	USA
Email:	john@hotmail.com
DayPhone:	912-333-7777
NightPhone:	
Fax:	
Mobile:	912-888-7799
ContractID:	898989
ContractName:	Fit4now
BillAmt:	25.00
TaxAmt:	0.00
TotalAmt:	25.00
StartDate:	04/20/07
EndDate:	04/20/08
BillingPeriod:	MONTH

BillingInterval:	<input type="text" value="1"/>
MaxFailures:	<input type="text" value="2"/>
FailureInterval:	<input type="text" value="2"/>
EmailCustomer:	<input type="text" value="TRUE"/>
EmailMerchant:	<input type="text" value="TRUE"/>
EmailCustomerFailure:	<input type="text" value="TRUE"/>
EmailMerchantFailure:	<input type="text" value="TRUE"/>
CheckType:	<input type="text" value="BUSINESS"/>
AccountType:	<input type="text" value="CHECKING"/>
CheckNum:	<input type="text" value="1001"/>
MICR:	<input type="text" value="90000018 100124413815"/>
AccountNum:	<input type="text" value="24413815"/>
TransitNum:	<input type="text" value="90000018"/>
SS:	<input type="text"/>
DOB:	<input type="text"/>
BranchCity:	<input type="text"/>
DL:	<input type="text"/>
StateCode:	<input type="text"/>
NameOnCheck:	<input type="text" value="John Jones"/>
ExtData:	<input type="text"/>

## Response

```

<?xml version="1.0" encoding="utf-8" ?>
- <RecurringResult xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://
  www.namespaceuri.com/Admin/ws">
  <CustomerKey>12</CustomerKey>
  <ContractKey>8</ContractKey>
  <CcInfoKey />

```

```

<CheckInfoKey>3</CheckInfoKey>
<code>OK</code>
<error>OK</error>
<Partner>100</Partner>
<Vendor>41</Vendor>
<Username>ncn1</Username>
  </RecurringResult>

```

## ProcessCreditCard - Recurring Billing

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

<http://localhost/admin/ws/recurring.asmx?op=ProcessCreditCard>

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

### Example

Parameter	Value
Username:	<input type="text" value="vital"/>
Password:	<input type="text" value="1234"/>
Vendor:	<input type="text" value="1"/>
CcInfoKey:	<input type="text" value="26607"/>
Amount:	<input type="text" value="1.00"/>
InvNum:	<input type="text" value="12345"/>
ExtData:	<input type="text"/>

### Response:

```
<?xml version="1.0" encoding="utf-8" ?>
```

```

- <RecurringResult xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://
  www.namespaceuri.com/Admin/ws">
  <code>OK</code>
  <error>APPROVED</error>
  <Result>0</Result>
  <AuthCode>TAS351</AuthCode>
  <PNRef>26873</PNRef>
  <Message>NO MATCH</Message>
  </RecurringResult>

```

## 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:

<http://localhost/admin/ws/recurring.asmx?op=ProcessCheck>

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

## Example

Parameter	Value
Username:	<input type="text" value="ncn1"/>
Password:	<input type="text" value="1234"/>
Vendor:	<input type="text" value="41"/>
CheckInfoKey:	<input type="text" value="7"/>
Amount:	<input type="text" value="5.00"/>
InvNum:	<input type="text" value="12345"/>
ExtData:	<input type="text"/>



## Response

```
<?xml version="1.0" encoding="utf-8" ?>
=<RecurringResult xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://
  www.namespaceuri.com/Admin/ws">
<code>OK</code>
<error>APPROVED</error>
<Result>0</Result>
<AuthCode>AUTH NUM 674-564</AuthCode>
<PNRef>26945</PNRef>
<Message>APPROVAL</Message>
</RecurringResult>
```

## ManageCheckInfo

This Web Service operation allows for managing check information .The URL to access this Web Service is: <http://localhost/admin/ws/recurring.asmx?op=ManageCheckInfo>

Parameter	Value
<b>Username</b>	Required. The username of the admin user.
<b>Password</b>	Required. The password of the admin user
<b>Vendor</b>	Required. The numerical Vendor/Merchant Key. This is also known as the RPNum or merchant index number.
<b>TransType</b>	Required. The type of transaction being performed. Valid values are: ADD UPDATE DELETE
<b>CustomerKey</b>	Required. The numerical customer key.
<b>CheckInfoKey</b>	Required for TransType UPDATE and DELETE. The numerical Customer Key
<b>CheckType</b>	Required. Two types of checks whether PERSONAL or BUSINESS.
<b>AccountType</b>	Required. Two types of account whether CHECKING or SAVINGS.
<b>CheckNum</b>	Optional. This is the check number.
<b>MICR</b>	Optional. This is the scanned MICR data of the check.
<b>AccountNum</b>	Required. This is the account number.
<b>TransitNum</b>	Required. This is the transit number.
<b>SS</b>	Optional. Social Security number of the check holder.
<b>DOB</b>	Optional. Date of Birth of the check holder.
<b>BranchCity</b>	Optional. The city of the bank where the branch is located.
<b>DL</b>	Optional. The driver's license number of the check holder

<b>StateCode</b>	Optional. The 2 character State Code of the driver's license of the check holder, e.g. NY or GA
<b>NameOnCheck</b>	Optional. The check holder's name as it is on the check.
<b>Email</b>	Optional. The customer's email address.
<b>DayPhone</b>	Optional. The customer's day phone.
<b>Street1</b>	Optional. The customer's street address 1.
<b>Street2</b>	Optional. The customer's street address 2.
<b>Street3</b>	Optional. The customer's street address3.
<b>City</b>	Optional. The customer's city.
<b>StateID</b>	Optional. The customer's 2 character State Code
<b>Province</b>	Optional. The customer's province if it is outside the USA
<b>PostalCode</b>	Optional. The customer's zip code if in USA , postal code if outside USA
<b>CountryID</b>	Optional. The customer's 3 character country code, for example, USA or CAN
<b>ExtData</b>	Optional. Extended Data.

### Example

Parameter	Value
Username:	ncn1
Password:	1234
TransType:	ADD
Vendor:	41
CustomerKey:	12
CheckInfoKey:	3
CheckType:	PERSONAL
AccountType:	CHECKING
CheckNum:	1001
MICR:	490000018100124413815
AccountNum:	24413815
TransitNum:	490000018
RawMICR:	
SS:	

DOB:	<input type="text"/>
BranchCity:	<input type="text"/>
DL:	<input type="text"/>
StateCode:	<input type="text"/>
NameOnCheck:	<input type="text"/>
Email:	<input type="text"/>
DayPhone:	<input type="text"/>
Street1:	123 Main Street
Street2:	<input type="text"/>
Street3:	<input type="text"/>
City:	Atlanta
StateID:	GA
Province:	<input type="text"/>
PostalCode:	40190
CountryID:	USA
ExtData:	<input type="text"/>

## Response

```

<?xml version="1.0" encoding="utf-8" ?>
= <RecurringResult xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://
  www.namespaceuri.com/Admin/ws">
  <CustomerKey>12</CustomerKey>
  <ContractKey />
  <CcInfoKey />
  <CheckInfoKey>4</CheckInfoKey>
  <code>OK</code>
  <error>OK</error>
  <Partner>100</Partner>
  <Vendor>41</Vendor>
  <Username>ncn1</Username>
</RecurringResult>

```

## ***ManageCreditCardInfo***

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

<http://localhost/admin/ws/recurring.asmx?op=ManageCreditCardInfo>

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

## Example

Parameter	Value
Username:	<input type="text" value="vital"/>
Password:	<input type="text" value="1234"/>
TransType:	<input type="text" value="ADD"/>
Vendor:	<input type="text" value="1"/>
CustomerKey:	<input type="text" value="11"/>
CardInfoKey:	<input type="text" value="26607"/>
CcAccountNum:	<input type="text" value="5439750001500347"/>
CcExpDate:	<input type="text" value="1209"/>
CcNameOnCard:	<input type="text" value="John Smith"/>
CcStreet:	<input type="text" value="123 Main Street"/>
CcZip:	<input type="text" value="40490"/>
ExtData:	<input type="text"/>

## Response

```
<?xml version="1.0" encoding="utf-8" ?>
<RecurringResult xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://
  www.namespaceuri.com/Admin/ws">
  <CustomerKey>11</CustomerKey>
  <ContractKey />
  <CcInfoKey>26674</CcInfoKey>
  <CheckInfoKey />
  <code>OK</code>
  <error>OK</error>
  <Partner>100</Partner>
  <Vendor>1</Vendor>
  <Username>vital</Username>
</RecurringResult>
```

## ManageContract

This web service allows for managing different properties of contracts via integration.

This can be accessed by using this URL:

<http://localhost/admin/ws/recurring.asmx?op=ManageContract>

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Parameter	Value
<b>Username</b>	Required. The username of the admin user.
<b>Password</b>	Required. The password of the admin user
<b>TransType</b>	Required. The type of transaction being performed. The valid values are: ADD UPDATE DELETE
<b>Vendor</b>	Required. The numerical Vendor/Merchant Key. This is also known as the RPNUM or merchant index number.
<b>CustomerKey</b>	Required. The numerical customer key.
<b>ContractKey</b>	Required for TransType UPDATE and DELETE. The numerical contract key.
<b>PaymentInfoKey</b>	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.
<b>PaymentType</b>	Required for TransType ADD and UPDATE. Type of payment: CC for Credit Card and CK for Check
<b>CustomerID</b>	Required. A merchant supplied a unique identifier for a customer.
<b>Customer Name</b>	Required. The customer's name is to be submitted in this field.
<b>FirstName</b>	Optional. The customer's first name.
<b>LastName</b>	Optional. The customer's last name.
<b>Title</b>	Optional. The customer's title.
<b>Department</b>	Optional. The customer's department.
<b>Street1</b>	Optional. The customer's street address 1.
<b>Street2</b>	Optional. The customer's street address 2.
<b>Street3</b>	Optional. The customer's street address3.
<b>City</b>	Optional. The customer's city.
<b>StateID</b>	Optional. The customer's 2 character State Code
<b>Province</b>	Optional. The customer's province if it is outside the USA
<b>Zip</b>	Optional. The customer's zip code if in the USA, postal code if outside the USA
<b>CountryID</b>	Optional. The customer's 3 character country code, for example, USA or CAN

<b>DayPhone</b>	Optional. The customer's day phone.
<b>NightPhone</b>	Optional. The customer's evening phone.
<b>Fax</b>	Optional. The customer's fax number.
<b>Email</b>	Optional. The customer's email address.
<b>Mobile</b>	Optional. The customer's mobile phone.
<b>ContractID</b>	Required. The merchant supplied unique identifier for the contract.
<b>ContractName</b>	Optional. The contract's name.
<b>BillAmt</b>	Optional. The amount to be billed in relation to the contract.
<b>TaxAmt</b>	Optional. The tax amount.
<b>TotalAmt</b>	Required. This is the total amount. BillAmt + TaxAmt = TotalAmt.
<b>StartDate</b>	Required. The start date of the contract.
<b>EndDate</b>	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
<b>NextBillDt</b>	Required. This is required for TRANSTYPE ADD and UPDATE.
<b>BillingPeriod</b>	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"
<b>BillingInterval</b>	Required. This is 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.



<b>MaxFailures</b>	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.
<b>FailureInterval</b>	Optional. Number of days the system will wait after each payment retry when the payment fails.
<b>EmailCustomer</b>	Optional. TRUE/FALSE setting whether to email the customer regarding the status of the recurring payment.
<b>EmailMerchant</b>	Optional. TRUE/FALSE setting whether to email the merchant regarding the status of recurring payment.
<b>EmailCustomerFailure</b>	Optional. TRUE/FALSE setting whether to email the customer when the recurring payment fails.
<b>EmailMerchantFailure</b>	Optional. TRUE/FALSE setting whether to email the merchant when the recurring payment fails.
<b>Status</b>	Optional. Status of the contract.
<b>ExtData</b>	Optional. Extended Data.

**Example**

Parameter	Value
Username:	<input type="text" value="vital"/>
Password:	<input type="text" value="1234"/>
TransType:	<input type="text" value="UPDATE"/>
Vendor:	<input type="text" value="1"/>
CustomerKey:	<input type="text" value="11"/>
ContractKey:	<input type="text" value="7"/>
PaymentInfoKey:	<input type="text" value="26607"/>

PaymentType:	CC
CustomerID:	44444
CustomerName:	Fitness Forever
FirstName:	John
LastName:	Smith
Title:	Sales Manager
Department:	Sales
Street1:	123 Main Street
Street2:	

Street3:	
City:	Atlanta
StateID:	GA
Province:	
Zip:	40490
CountryID:	USA
Email:	johns@hotmail.com
DayPhone:	912-333-4444
NightPhone:	912-888-9999
Fax:	
Mobile:	912-777-9999
ContractID:	22222
ContractName:	Fitness4ever
BillAmt:	19.00
TaxAmt:	2.00
TotalAmt:	21.00
StartDate:	02/13/2007
EndDate:	04/13/2007

NextBillDt:	<input type="text" value="2/13/2007"/>
BillingPeriod:	<input type="text" value="DAY"/>
BillingInterval:	<input type="text" value="2"/>
MaxFailures:	<input type="text" value="1"/>
FailureInterval:	<input type="text" value="1"/>
EmailCustomer:	<input type="text" value="TRUE"/>
EmailMerchant:	<input type="text" value="TRUE"/>
EmailCustomerFailure:	<input type="text" value="TRUE"/>
EmailMerchantFailure:	<input type="text" value="TRUE"/>
Status:	<input type="text"/>
ExtData:	<input type="text"/>

```

<?xml version="1.0" encoding="utf-8" ?>
- <RecurringResult xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://
  www.namespaceuri.com/Admin/ws">
  <CustomerKey>11</CustomerKey>
  <ContractKey>7</ContractKey>
  <CcInfoKey>26607</CcInfoKey>
  <CheckInfoKey />
  <code>OK</code>
  <error>OK</error>
  <Partner>100</Partner>
  <Vendor>1</Vendor>
  <Username>vital</Username>
</RecurringResult>

```

## ***ManageCustomer***

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

<http://savqaps/admin/ws/recurring.asmx?op=ManageCustomer>

Parameter	Value
<b>Username</b>	Required. The username of the admin user.
<b>Password</b>	Required. The password of the admin user
<b>TransType</b>	Required. The type of transaction being performed. The valid values are: ADD

	UPDATE DELETE
<b>Vendor</b>	Required. The numerical Vendor/Merchant Key. This is also known as the RPNum or merchant index number.
<b>CustomerKey</b>	Required. The numerical customer key.
<b>CustomerID</b>	Required. A merchant supplied a unique identifier for a customer.
<b>Customer Name</b>	Required. The customer's name is to be submitted in this field.
<b>FirstName</b>	Optional. The customer's first name.
<b>LastName</b>	Optional. The customer's last name.
<b>Title</b>	Optional. The customer's title.
<b>Department</b>	Optional. The customer's department.
<b>Street1</b>	Optional. The customer's street address 1.
<b>Street2</b>	Optional. The customer's street address 2.
<b>Street3</b>	Optional. The customer's street address3.
<b>City</b>	Optional. The customer's city.
<b>StateID</b>	Optional. The customer's 2 character State Code
<b>Province</b>	Optional. The customer's province if it is outside the USA
<b>Zip</b>	Optional. The customer's zip code if in the USA, postal code if outside the USA
<b>CountryID</b>	Optional. The customer's 3 character country code, for example, USA or CAN
<b>DayPhone</b>	Optional. The customer's day phone.
<b>NightPhone</b>	Optional. The customer's evening phone.
<b>Fax</b>	Optional. The customer's fax number.
<b>Email</b>	Optional. The customer's email address.
<b>Mobile</b>	Optional. The customer's mobile phone.
<b>Status</b>	Optional. Status of the contract.
<b>ExtData</b>	Optional. Extended Data.

## Example

Parameter	Value
Username:	<input type="text" value="vital"/>
Password:	<input type="text" value="1234"/>
TransType:	<input type="text" value="UPDATE"/>
Vendor:	<input type="text" value="1"/>
CustomerKey:	<input type="text" value="11"/>
CustomerID:	<input type="text" value="44444"/>
CustomerName:	<input type="text" value="Fitness Forever"/>
FirstName:	<input type="text" value="John"/>
LastName:	<input type="text" value="Smith"/>
Title:	<input type="text" value="Sales Manager"/>
Department:	<input type="text" value="Sales"/>
Street1:	<input type="text" value="123 Main Street"/>
Street2:	<input type="text"/>
Street3:	<input type="text"/>
City:	<input type="text" value="Atlanta"/>
StateID:	<input type="text" value="GA"/>
Province:	<input type="text"/>

Zip:	<input type="text" value="40490"/>
CountryID:	<input type="text" value="USA"/>
Email:	<input type="text" value="JSmith@hotmail.com"/>
DayPhone:	<input type="text" value="912-333-4444"/>
NightPhone:	<input type="text" value="912-888-9999"/>
Fax:	<input type="text"/>
Mobile:	<input type="text" value="912-777-8888"/>
Status:	<input type="text"/>
ExtData:	<input type="text"/>
<input type="button" value="Invoke"/>	

## Response

```

<?xml version="1.0" encoding="utf-8" ?>
- <RecurringResult xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://
  www.namespaceuri.com/Admin/ws">
  <CustomerKey>11</CustomerKey>
  <code>OK</code>
  <error>OK</error>
  <Partner />
  <Vendor>1</Vendor>
  <Username>vital</Username>
  </RecurringResult>

```

### ***ManageContractAddDaysToNextBillDt***

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

<http://localhost/admin/ws/recurring.asmx?op=ManageContractAddDaysToNextBillDt>

Parameter	Value
<b>Username</b>	Required. The username of the admin user.
<b>Password</b>	Required. The password of the admin user
<b>Vendor</b>	Required. The numerical Vendor/Merchant Key. This is also known as the RPNUM or merchant index number.
<b>CustomerKey</b>	Required. The numerical customer key.

<b>ContractKey</b>	Required for TransType UPDATE and DELETE. The numerical contract key.
<b>NumOfDays</b>	The number of days to be added.
<b>ExtData</b>	Optional. Extended Data.

### Example

Parameter	Value
Username:	<input type="text" value="vital"/>
Password:	<input type="text" value="1234"/>
Vendor:	<input type="text" value="1"/>
CustomerKey:	<input type="text" value="11"/>
ContractKey:	<input type="text" value="7"/>
NumOfDays:	<input type="text" value="15"/>
ExtData:	<input type="text"/>

### Response

```

<?xml version="1.0" encoding="utf-8" ?>
= <RecurringResult xmlns:xsd="http://www.w3.org/2001/XMLSchema"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://
  www.namespaceuri.com/Admin/ws">
  <CustomerKey>11</CustomerKey>
  <ContractKey>7</ContractKey>
  <CcInfoKey />
  <CheckInfoKey />
  <code>OK</code>
  <error>NextBillDate=2/28/2007</error>
  <Partner />
  <Vendor />
  <Username>vital</Username>
  </RecurringResult>

```

## 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

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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)
501	Decryption Failure
502	Unregistered Device IIN
503	Invalid Secure Format
504	Invalid Secure Track1
505	Invalid Secure Track2

## ***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.

<b>Value</b>	<b>Description</b>
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
<	&lt;
>	&gt;
&	&amp;
'	&apos;
"	&quot;

## Example

The following example shows how characters would be removed if the data was passed through the NameOnCard parameter of the ProcessCreditCard operation.

Valid: *John James*

Invalid: *John & James becomes John James*

Invalid: *John & James becomes John amp; James*