**int\_virtualpiggy**

Version 1.0



Table of Contents

[1. Summary 1-3](#_Toc280189026)

[2. Component Overview 2-4](#_Toc280189027)

[2.1 Functional Overview 2-4](#_Toc280189028)

[2.2 Use Cases 2-4](#_Toc280189029)

[2.3 Limitations, Constraints 2-4](#_Toc280189030)

[2.4 Compatibility 2-4](#_Toc280189031)

[2.5 Privacy, Payment 2-4](#_Toc280189032)

[3. Implementation Guide 3-5](#_Toc280189033)

[3.1 Setup 3-5](#_Toc280189034)

[3.2 Configuration 3-5](#_Toc280189035)

[3.3 Custom Code 3-11](#_Toc280189036)

[3.4 External Interfaces 3-11](#_Toc280189037)

[3.5 Testing 3-12](#_Toc280189038)

[4. Operations, Maintenance 4-13](#_Toc280189039)

[4.1 Data Storage 4-13](#_Toc280189040)

[4.2 Availability 4-13](#_Toc280189041)

[4.3 Support 4-13](#_Toc280189042)

[5. User Guide 5-14](#_Toc280189043)

[5.1 Roles, Responsibilities 5-14](#_Toc280189044)

[5.2 Business Manager 5-14](#_Toc280189045)

[5.3 Storefront Functionality 5-15](#_Toc280189046)

[6. Known Issues 6-18](#_Toc280189047)

[7. Release History 7-18](#_Toc280189048)

# Summary

* The component adds a possibility for merchant to enable COPPA compliant, Level 1 PCI certified checkout gateway designed for families and under aged minors. Component integrates with the 3rd party payment gateways.
* The component is free of charge. A contract is required between Virtual Piggy and a Merchant using the component. Virtual Piggy charges a percentage per successful transaction placed using the component. Please contact Virtual Piggy for the current rates.
* To use Virtual Piggy, merchants must assign and install int\_virtualpiggy cartridge, create custom system definitions, set Virtual Piggy site preferences, create a Virtual Piggy payment methods for each site that will use cartridge, and provide callback URL’s for Virtual Piggy.

# Component Overview

## Functional Overview

The cartridge adds an opportunity to purchase goods using Virtual Piggy© payment provider. It contains:

* Authentication using Virtual Piggy credentials
* Custom single-page checkout
* Credit Card authorization and capturing in both automatic and manual modes
* Confirmation email sending in case of order approval

## Use Cases

The cartridge supports following use cases:

* Child checkout in automatic mode (no parent approval required)
* Child checkout in manual mode (parent approval required)
* Guest checkout (parent purchases for selected child)
* Automatic Capture (money get captured from CC automatically)
* Manual Capture (manual action for each approved order required)

## Limitations, Constraints

* Single-shipment supported only
* One shipping method should be set for all Virtual Piggy orders
* Gift Certificates are not supported
* Front-end integration was developed for SiteGenesis v12.5+. Solutions based on previous versions could require additional actions for integration.
* For Child checkout in manual mode (parent approval required) in the event that the parent rejects the order in the Virtual Piggy interface the total amount of these orders will be added to the merchant's GMV total and result in charges with Demandware

## Compatibility

Front-end is compatible with SiteGenesis 12.5. Back-end is compatible with API 2.10.6.

## Privacy, Payment

Demandware has no access to the user of the cartridge credit card data (PCI Level 1 compliant) or a child’s full name and address (COPPA compliant). Credit card data is stored within the Virtual Piggy application.

For terms, please visit: <http://virtualpiggy.com/terms.html>

For privacy policy, please visit: http://www.virtualpiggy.com/privacy.html

# Implementation Guide

## Setup

The int\_virtualpiggy cartridge is required for the integration.

## Configuration

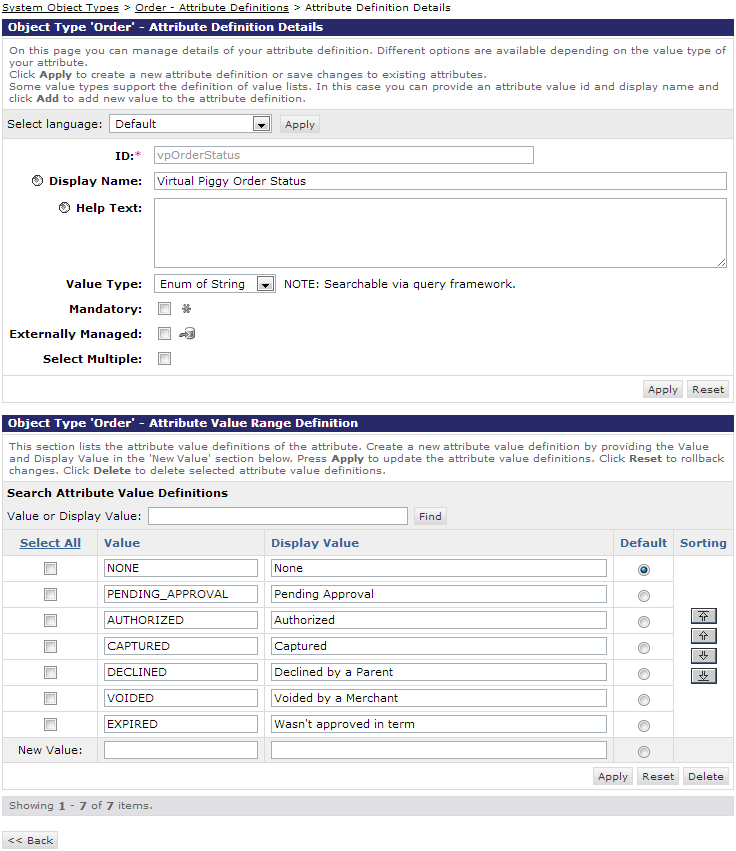
The integration requires 5 configuration steps:

1. Create custom System Object definitions
2. Set Virtual Piggy Site Preferences for each site
3. Create a Virtual Piggy payment method for each site
4. Provide Callback URLs for Virtual Piggy
5. Assign the cartridge to a site

IMPORTANT: steps 1 and 3 could be performed at the same time and automatically using the “Site Import” feature. Detailed site import instructions are provided at the end of this section.

**Create System Object Definitions**

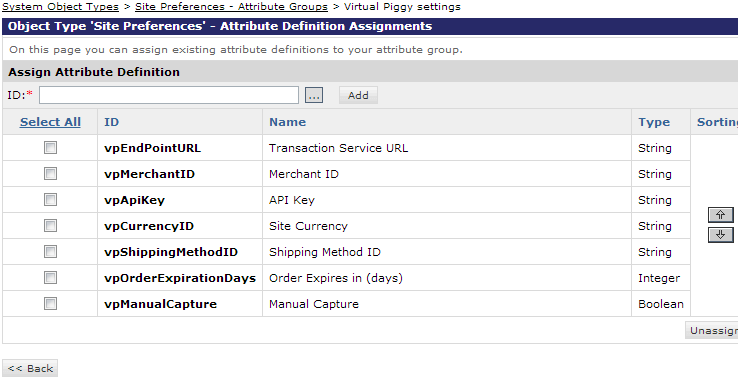
1. Create the following system object definitions:



* Order
  + vpOrderStatus
    - id: vpOrderStatus
    - display name: Virtual Piggy Order Status
    - type: Enum of Strings
    - mandatory: false
    - values:
      * value: NONE, display value: None
      * value: PENDING\_APPROVAL, display value: Pending Approval
      * value: AUTHORIZED, display value: Authorized
      * value: CAPTURED, display value: Captured
      * value: DECLINED, display value: Declined by a Parent
      * value: VOIDED, display value: Voided by a Merchant
      * value: EXPIRED, display value: wasn’t approved in term
  + vpTransactionId
    - id: vpTransactionId
    - display name: Virtual Piggy Transaction Id
    - type: String
    - mandatory: false
* Site Preferences
  + vpApiKey
    - id: vpApiKey
    - display name: API Key
    - type: String
    - mandatory: false
  + vpCurrencyId
    - id: vpCurrencyId
    - display name: Site Currency
    - description: Optional. Please consult your Virtual Piggy contact whether you should put here anything.
    - type: String
    - mandatory: false
    - regex: /^[A-Z]{3}$/
  + vpEndPointURL
    - id: vpEndpointURL
    - display name: Transaction Service URL
    - description: If empty points to a development Virtual Piggy instance
    - type: String
    - mandatory: false
    - default value: https://development.virtualpiggy.com/Services/TransactionService.svc
  + vpManualCapture
    - id: vpManualCapture
    - display name: Manual Capture
    - description: Should be checked if you’re using the Manual Capture workflow
    - type: Boolean
    - mandatory: false
  + vpMerchantID
    - id: vpMerchantID
    - display name: Merchant ID
    - type: String
    - mandatory: false
    - regex: /^[0-9a-f-]+$/
  + vpOrderExpirationDays
    - id: vpOrderExpirationDays
    - display name: Order expires in (days)
    - type: Integer
    - mandatory: false
    - minimum value: 1
    - default value: 7
  + vpShippingMethodID
    - id: vpShippingMethodID
    - display name: Shipping Method ID
    - description: ID of an active shipping method that will be used for all Virtual Piggy orders. Please ensure that this shipping method is applicable for all locations required.
    - type: String
    - mandatory: false

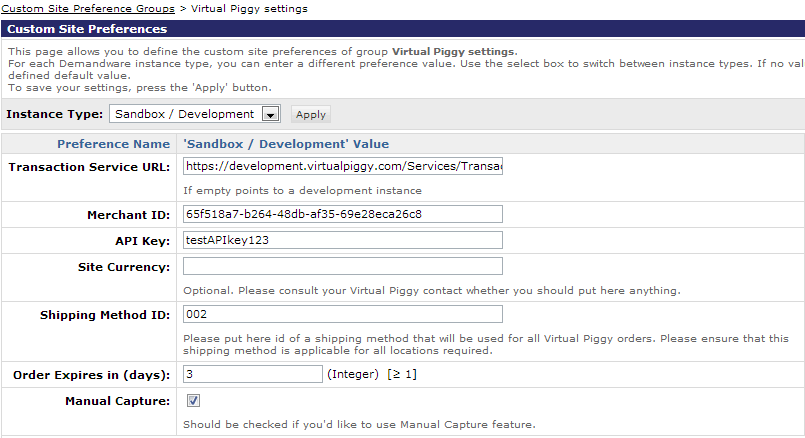
2. Create an attribute group for Virtual Piggy site preferences:

* id: VIRTUAL\_PIGGY
* display name: Virtual Piggy Settings
* attributes:
  + vpEndPointURL
  + vpMerchantID
  + vpApiKey
  + vpCurrencyID
  + vpShippingMethodID
  + vpOrderExpirationDays
  + vpManualCapture



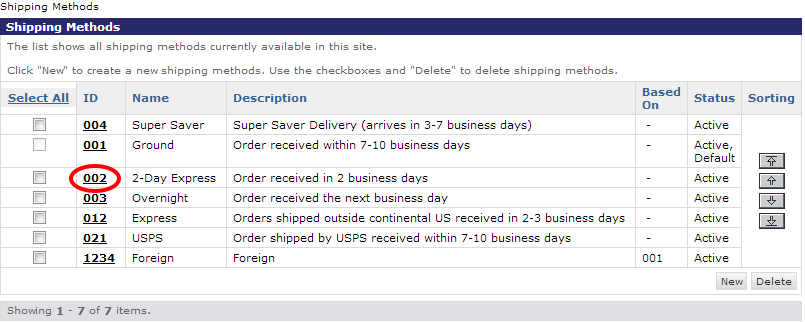
**Set Virtual Piggy Site Preferences for Each Site**

For each site that Virtual Piggy used as a payment option, go to Site -> Site Preferences -> Custom Preferences -> Virtual Piggy Settings and set the preferences according to the following screenshot:



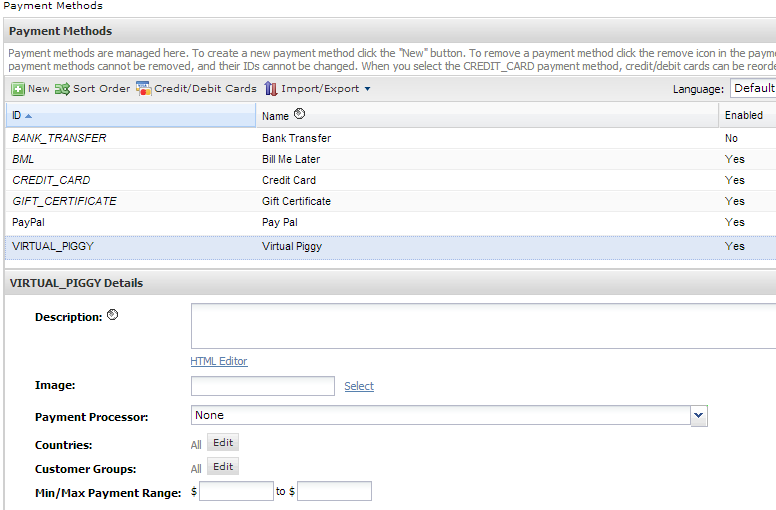
Some suggestions:

* Transaction Service URL, Merchant ID, API Key and Site Currency should be requested from Virtual Piggy;
* ”Order Expires in” and “Manual Capture” should be set accordingly your Virtual Piggy workflow;
* Shipping Method ID should contain explicit ID of a shipping method configured on your instance for all Virtual Piggy orders (see the screenshot below).



**Create a Virtual Piggy Payment Method for Each Site**

The payment method should be created according to the following screenshot below:



The only required fields are ID, Name and Enabled. The rest of fields can be set according to your requirements.

**Provide Callback URLs for Virtual Piggy**

To complete the configuration you should provide callback urls for Approval and Reject requests from Virtual Piggy service.

Examples:

https://sandbox1.my.dw.demandware.net/on/demandware.store/Sites-SiteID-Site/default/VPCallback-Approve

https://sandbox1.my.dw.demandware.net/on/demandware.store/Sites-SiteID-Site/default/VPCallback-Decline

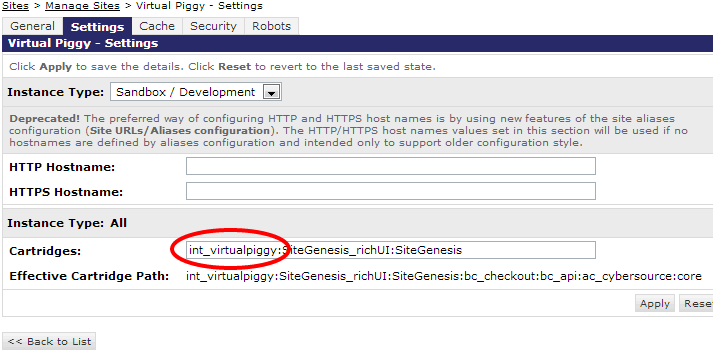
Where:

sandbox1.my.dw.demandware.net – your instance’s domain

SiteID – your particular site’s identifier

**Assign the cartridge to a site**

Add the cartridge name into the cartridge list for each site where Virtual Piggy is needed, including Business Manager:



## Custom Code

Integration is based on new templates introduced in SiteGenesis 12.5. Integration points are:

* checkout/pt\_checkout\_UI.isml
* checkout/cart/pt\_cart\_UI.isml
* checkout/cart/pt\_cart\_VARS.isml

Additionally use checkout/cart/rightcolumn.isml file as a reference as to how the VirtualPiggy login button should be inserted.

In case your solution is based on an earlier SiteGenesis version or on any other reference application, you have to:

* put contents of \*\_UI.isml files into <head> section of the pages Cart and Checkout. It can be put it into global header.
* put contents of pt\_cart\_VARS.isml into bottom of the Cart page (below the VirtualPiggy button include) and any other pages you’re going to place the button.

Additionally, the WSDL file may need updated for VirtualPiggy service. To do this, download the latest version from the following address and save it as webreferences/VirtualPiggyService.wsdl:

https://development.virtualpiggy.com/services/TransactionService.svc?wsdl

## External Interfaces

The cartridge uses SOAP to interact with the VirtualPiggy service. VirtualPiggy uses http(s) form submit to callback pipelines on the Demandware side to send order status updates.

**SOAP requests implemented in the cartridge:**

|  |  |
| --- | --- |
| AuthenticateUser | Method to authenticate parent or child and returns a token to use in subsequent calls |
| CaptureTransactionByIdentifier | For a 2 step transaction process, capture or cancel the transaction |
| GetAllChildren | Method to return a Parent's list of children that items can be purchased for |
| GetChildAddress | Method to return Child's address details |
| GetParentAddress | Method to return a Parent's address details |
| GetParentChildAddress | Method to return Child's address details |
| GetPaymentAccounts | Method to return a Parent's payment accounts |
| PingHeaders | Used to verify connectivity to the web service and verifies validity for the header values vp.MerchantIdentifier and vp.APIkey |
| ProcessParentTransaction | Method to process parent transaction |
| ProcessTransaction | Method to process child transaction |

The methods are described in detail on Virtual Piggy’s Documentation site: <http://docs.virtualpiggy.com/index.php/home/integrate/transaction-services-api>

**Callback Pipelines**

On order status update, the Virtual Piggy service notifies Demandware using callback. There are two callback pipelines that process the following status changes:

* VPCallback-Approve: Processed, Expired, Declined.
* VPCallback-Reject: Reject.

## Testing

There is a dedicated pipeline **VirtualPiggyTest-All** that was developed to test connection and base functions of the integration.

**Note:** This pipeline is accessed via the browser, however, the pipeline is set to “private” and initially can’t be accessed via a browser. To use the pipeline set the start node to “public”. When done set the start node back to “private”.

It consists of 3 parts:

1. Ping Only.
   1. PingHeaders – only credentials from Business Manager are used for connectivity verification.
2. Child Checkout
   1. AuthenticateUser – authenticate a child using credentials from templates/resources/vptest.properties. Credentials are stored in vptest.data.childlogin and vptest.data.childpassword fields.
   2. GetChildAddress – get a shipping address for the child authenticated.
   3. ProcessTransaction – process a test transaction.
   4. CaptureTransactionByIdentifier – capture the transaction above.
3. Parent Checkout
   1. AuthenticateUser – authenticate a parent using credentials from templates/resources/vptest.properties. Credentials are stored in vptest.data.parentlogin and vptest.data.parentpassword fields.
   2. GetAllChildren – get all children available for the parent and save first from the list for further tests.
   3. GetParentAddress – retrieve the parent’s address.
   4. GetParentChildAddress – retrieve the address for the child saved on step b.
   5. GetPaymentAccounts – retrieve all payment accounts of the parent and store first of them for the transaction below.
   6. ProcessParentTransaction – process a test transaction for the child saved and using the payment account saved.
   7. CaptureTransactionByIdentifier – void the transaction above.

# Operations, Maintenance

## Data Storage

All needed data is stored on Order level in custom fields vpOrderStatus and vpTransactionId.

## Availability

GSI reports 99.9% uptime availability. In case if there is no service, a 404 error will be display by Virtual Piggy. For technical support please contact [integration@virtualpiggy.com](mailto:integration@virtualpiggy.com)

## Support

For technical support please contact: [integration@virtualpiggy.com](mailto:integration@virtualpiggy.com)

Phone number: 310-853-1950

# User Guide

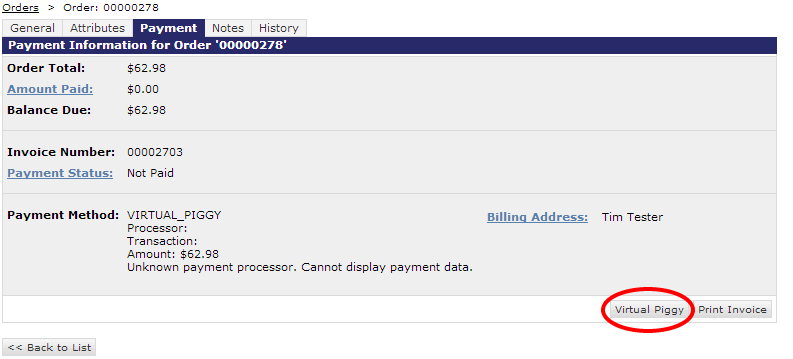
## Roles, Responsibilities

In case of “Automatic Capture” workflow, no recurring tasks are needed.

In case of “Manual Capture” workflow, a dedicated person is required to make a decision as to whether to proceed with approved orders. Please see section 5.2 for more details.

## Business Manager

In custom Site Preferences a new button appears on the Payment Tab of the Order page.



This button is used to proceed with “Manual Capture” workflow. It works only when Manual Capture is activated in Virtual Piggy Site Preferences and the current order’s vpOrderStatus is “Authorized”. In this case click on the button will show the following page:



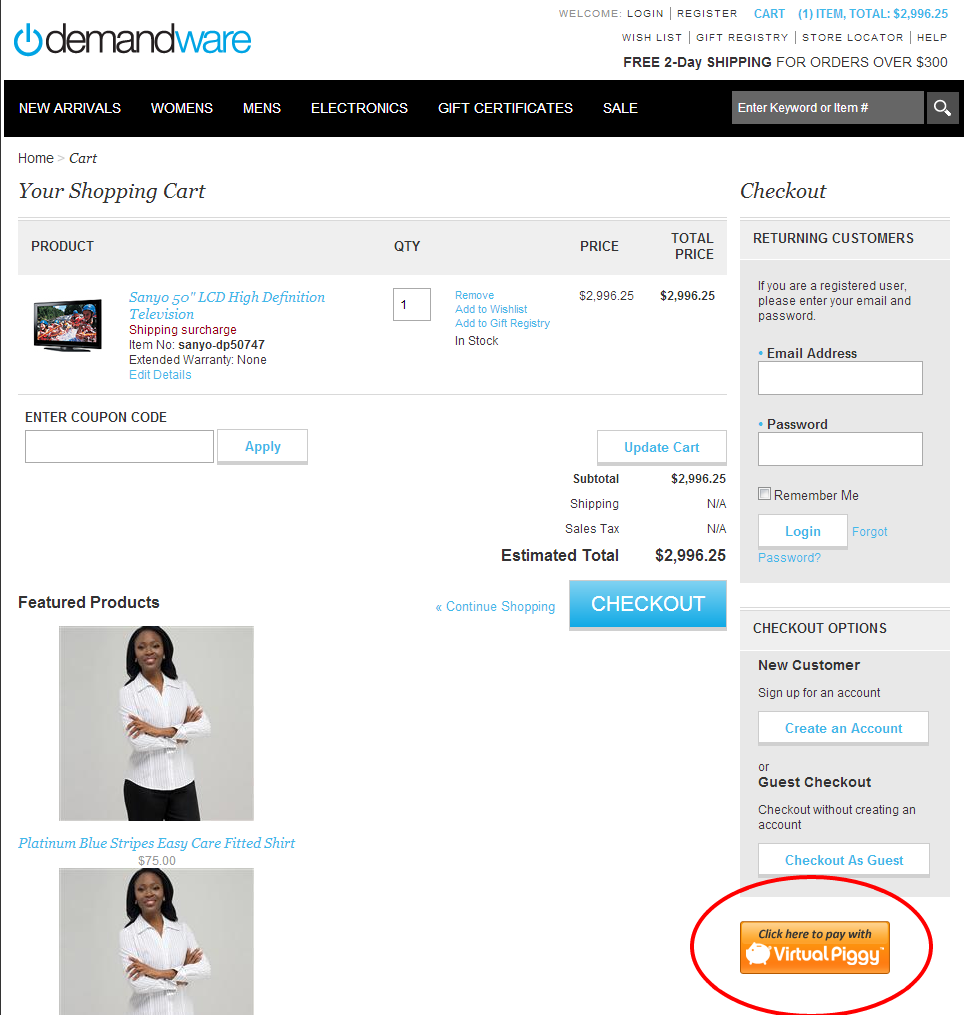
Click on the “Capture” button will send a request to VirtualPiggy to capture the money and will proceed with the order.

Click on the “Void” button will send a request to VirtualPiggy to cancel the transaction and will cancel the order.

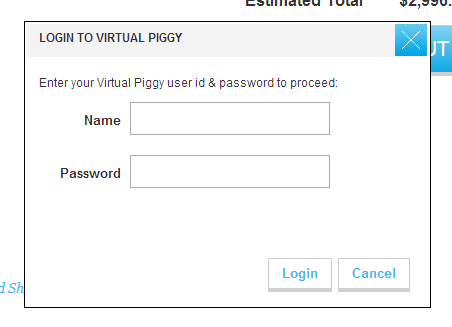
## Storefront Functionality

**Cart**

The cart page will have new button:

**

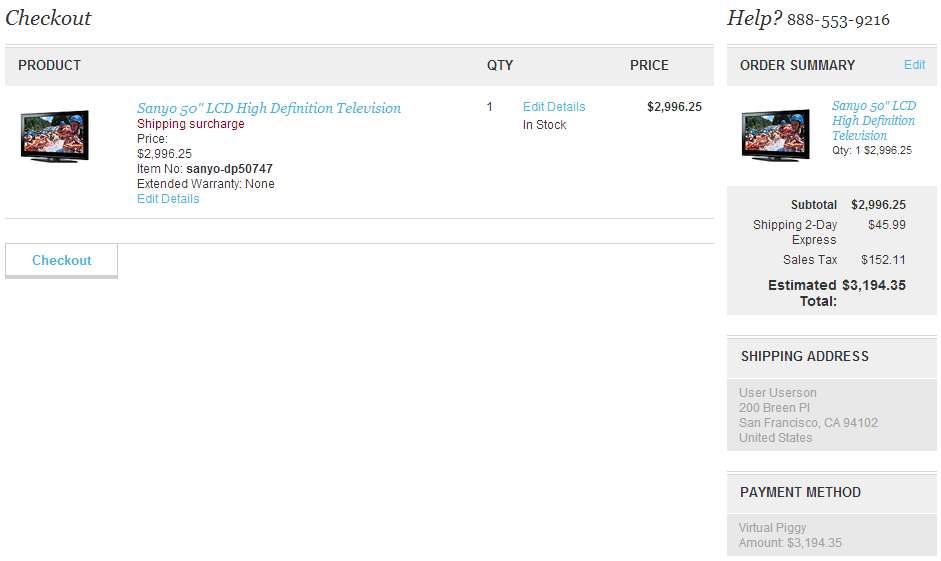
Click the button to open a login window with Virtual Piggy Dialog:

**

Enter login and password credentials in the appropriate fields. They will be sent to Virtual Piggy service to authenticate and to get user type to proceed correctly. After successful authentication, a user is redirected to Parent Checkout or Child Checkout according to his/her user type.

**Child Checkout**

Child Checkout page contains only ordered product list and a button to proceed.



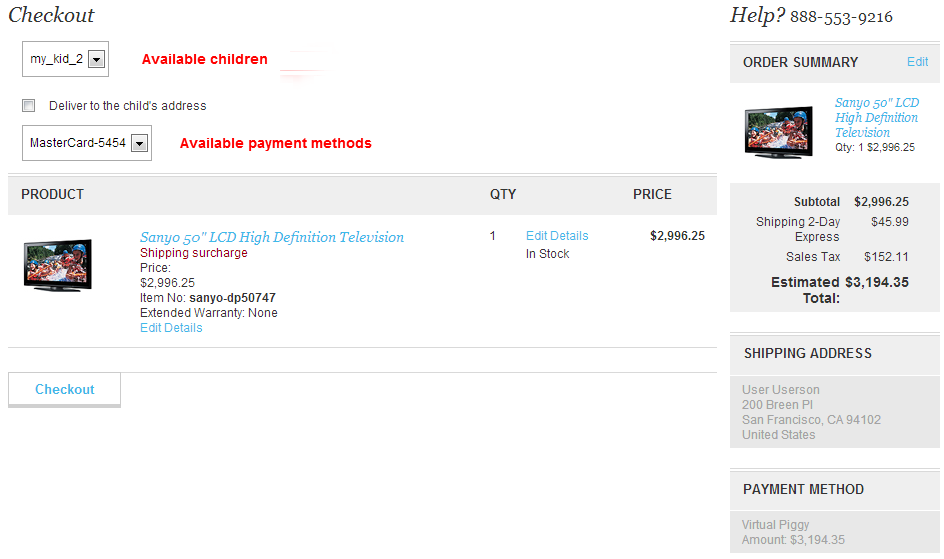
Clicking on the button will send a request to the Virtual Piggy service. The following responses to the order are:

* **Processed immediately** - order gets approved on Virtual Piggy side and is ready to be processed on Demandware side as an ordinary order
* **Processed as “Approval Pending”** - order is created but waits for an approval from the child’s parent
* **Not processed** - order is not processed because of a decision on Virtual Piggy side or an error occurred. If an error occurred, an error message is shown on the page.

**Parent Checkout**

Parent Checkout page looks similar to the Child Checkout page but it also contains additional controls to:

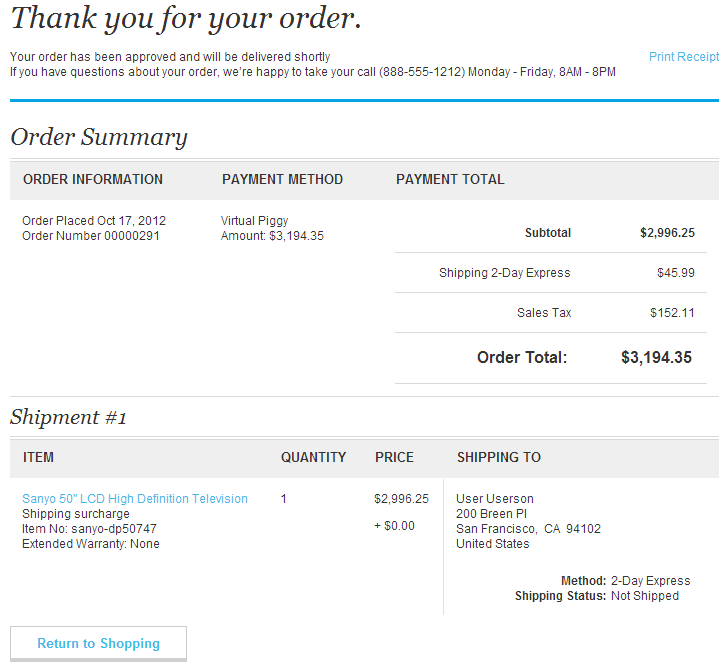
* choose a child (if multiple exist) that the order is made for
* delivery type (to parent or child address)
* payment method for the order



Please bear in mind that all data except an order itself (e.g. shipping address, payment method etc) are stored and handled on VirtualPiggy side only. Any data saved on a Demandware side is not used.

**Order Confirmation**

After Parent Checkout and successful Child Checkout (both Processed and Pending Approval) an Order Confirmation page is shown.



# Known Issues

No known issues currently exist for the latest version of the Virtual Piggy cartridge.

# Release History

|  |  |  |
| --- | --- | --- |
| **Version** | **Date** | **Changes** |
| 1.0.0 | <10/17/2012> | Initial release |