

INNOV-3: Integrating PayPal Transactions into Your OpenEdge® Database

Presented by

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Session Description

PayPal can send over 50 hidden variables to your server every time a customer makes a payment. Learn how to capture these variables through PayPal's back-end server-to-server "Instant Payment Notification" (IPN). This session assumes you know basic Progress 4GL. Simple WebSpeed, HTML, and JavaScript code examples, necessary for exchanging PayPal variables, will be explained.

You will learn how to keep track of PayPal payment transactions made between two other parties. This will allow you to provide a web page to sell your widget and GIVE it to independent salespeople to drive traffic. Every time they sell a widget for you, your server is notified of the transaction.

- PayPal FAQs
- Setting up your PayPal test environment
- PayPal registration requirements
- PayPal Instant Payment Notification (IPN) Program
- HTML, JavaScript, WebSpeed code examples
- Online Tutorials and Technical Resources

PayPal FAQ

- A secure online payment processing service
- 87 million members
- Bought by eBay for \$1.5 billion in 2002
- Processed over \$25 billion dollars in 2005
- 1 in 3 online buyers in US has PayPal account
- PayPal provides a developer's environment
- http://www.paypal.com/cgi-bin/webscr?cmd=_help-ext

PayPal Security Features

- Address much match that of credit card
- Address must be in eligible country or
- Member can live anywhere and have a US bank account
- Bank and credit card information is never shared between buyer and seller
- Addresses are confirmed
- Bank accounts and credit cards are verified
- Seller online certificates available
- Ability for seller to deny payments from unverified accounts or non-US account
- Buyer and seller protection plans

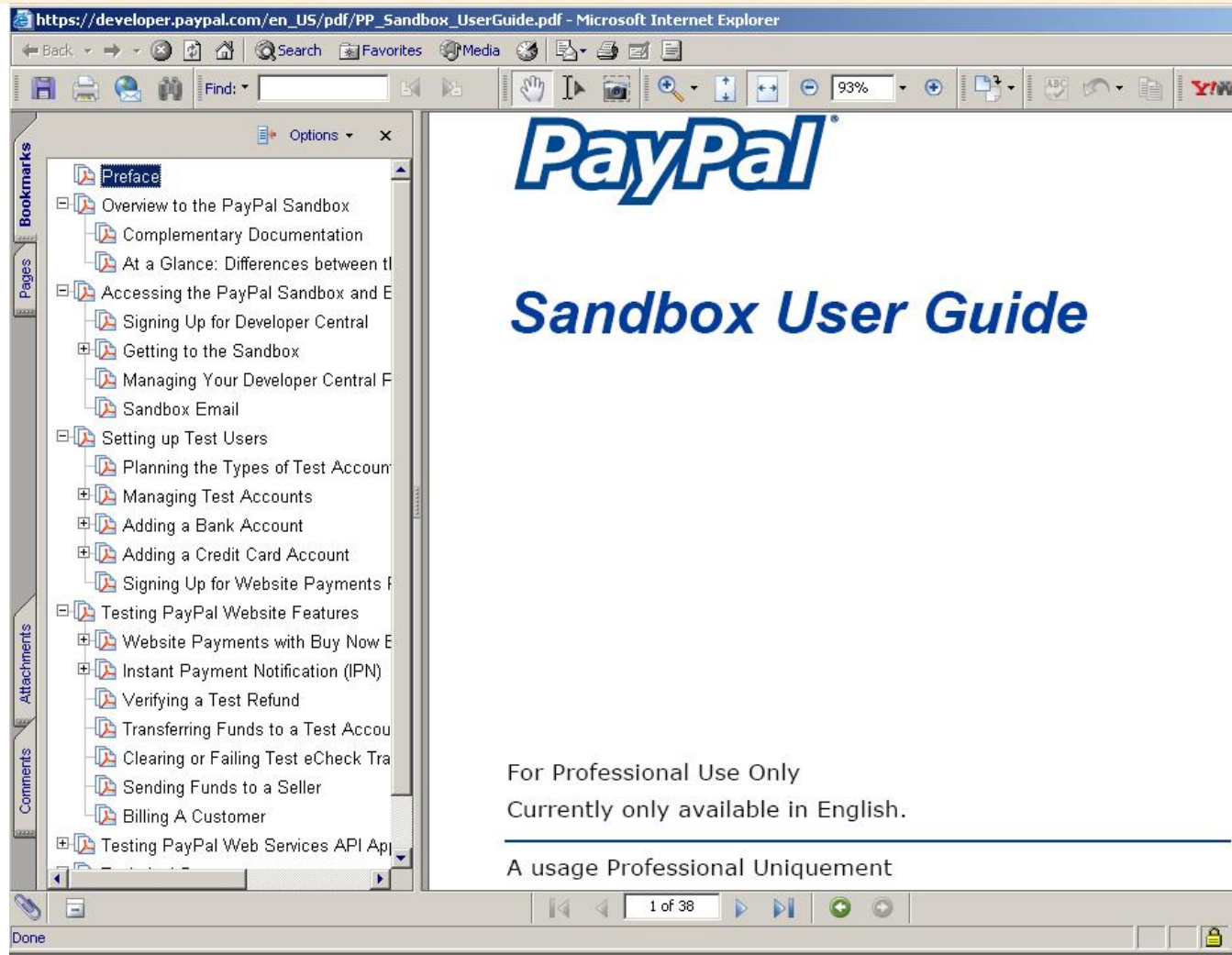
Setting Up Your Test Environment

- Sandbox testing with PayPal dummy account
- Live testing with real PayPal account

PayPal Sandbox Testing

- Create multiple “dummy” test accounts
- Receive fake bank accounts with money
- Receive fake credit cards
- Manage all confirmation emails in one inbox
- Set up sandbox at
<https://developer.paypal.com>
- Sandbox home page is at
<http://www.sandbox.paypal.com>

PayPal Sandbox User Guide



- 38-page guide at https://developer.paypal.com/en_US/pdf/PP_Sandbox_UserGuide.pdf

PayPal Live Testing

- Make payments to a PayPal account used only for testing.
- Pay only .01 cents when testing (\$10 goes a long way).
- Pay an **unverified** PayPal account.
- An unverified PayPal member cannot withdraw money.
- PayPal will refund payments to unverified members.
- The seller may manually refund payments up to 60 days.
- To make a refund, click on transaction “details” and look at bottom of page for “Refund payment” link.

PayPal Registration - email

- Your email address with which you register is used as your login name and identifies your account.
- One PayPal account can have many email addresses.
- But each email address can be registered to *only* one PayPal account.

PayPal Registration - banks

- One PayPal account can have many bank accounts and credit cards.
- But each bank account and credit card can be registered to *only* one PayPal account.
- To accept credit card payments you must register as a business or premier account.

PayPal Confirmation and Verification

- To accept payments you must be a business or premier account.
- To withdraw funds you must **confirm** your address.
- To withdraw funds you must **verify** your bank account and credit card information.
- Your address must match your credit card and bank account information.
- PayPal will automatically refund payments made to unverified accounts

PayPal Eligible Countries

- **Have a US bank account or**
- **Withdraw money to bank accounts in 35 countries**
- **Make payments from 55+ countries**

PayPal Eligible Countries

Users in these 26 countries can transfer their money electronically from their PayPal account into their local bank account or into their US bank account:

- Australia
- Austria
- Belgium
- Canada
- Denmark
- Finland
- France
- Germany
- Greece
- Hong Kong
- Ireland
- Italy
- Japan
- Mexico
- Netherlands
- New Zealand
- Norway
- Portugal
- Singapore
- South Korea
- Spain
- Sweden
- Switzerland
- Taiwan
- United Kingdom
- United States

PayPal Eligible Countries

Users in these 9 countries can withdraw funds from their PayPal account by a check sent by mail to their home address:

- Argentina
- Brazil
- Chile
- China
- Ecuador
- India
- Jamaica
- United States
- Uruguay

PayPal Eligible Countries

Users in these 8 countries *cannot* withdraw funds, either electronically or by check, to their local account, but *can* withdraw funds to their U.S. account:

- Costa Rica
- Dominican Republic
- Iceland
- Israel
- Malaysia
- Thailand
- Turkey
- Venezuela

PayPal Eligible Countries – send only

Users in these 13 countries can have a PayPal account to send money out, but may **not** withdraw money from their PayPal account:

- Anguilla
- Cyprus
- Czech Republic
- Estonia
- Hungary
- Latvia
- Lithuania
- Luxembourg*
- Malta
- Poland
- Slovakia
- Slovenia
- South Africa

*Only Luxembourg Personal and Premier Accounts are Send Only. Luxembourg Business Accounts may both send and receive funds.

Types of PayPal Payments

- Website payments with PayPal Buy Now button
- **Instant Payment Notification (IPN)**
- Shopping Cart – multiple items
- Subscriptions – recurring payments
- Refunds

PayPal Email Notifications

- Notification of payment received is emailed to seller.
- Notification of payment made is emailed to buyer.
- No bank account or credit card information is shared between buyer and seller.
- Payment transaction is automatically refunded if unverified seller does not accept payment within a certain time-frame.

Dear A Beam,

This email confirms that you have paid beampoet@yahoo.com (beampoet@yahoo.com) \$0.02 USD using PayPal.

Payment Details

Transaction ID: 51W65116XB397450A
Total Shipping: \$0.01 USD
Total: \$0.02 USD
Item/Product Name: Between or Among? I'll Be Hanged If I Can
Item/Product Number: ISBN 1-879177-28-5
Buyer: A Beam
Message: this is a test

Business Information

Business: beampoet@yahoo.com

Your Confirmed Address

Shipping Info: A Beam
1908 Cathy Lane T2
McLean, VA 22102

Protect Your Account Info

Make sure you never provide your password to fraudulent websites.

To safely and securely access the PayPal website or your account, open a new web browser (e.g. Internet Explorer or Netscape) and type in the PayPal URL (<https://www.paypal.com/us/>) to be sure you are on the real PayPal site.

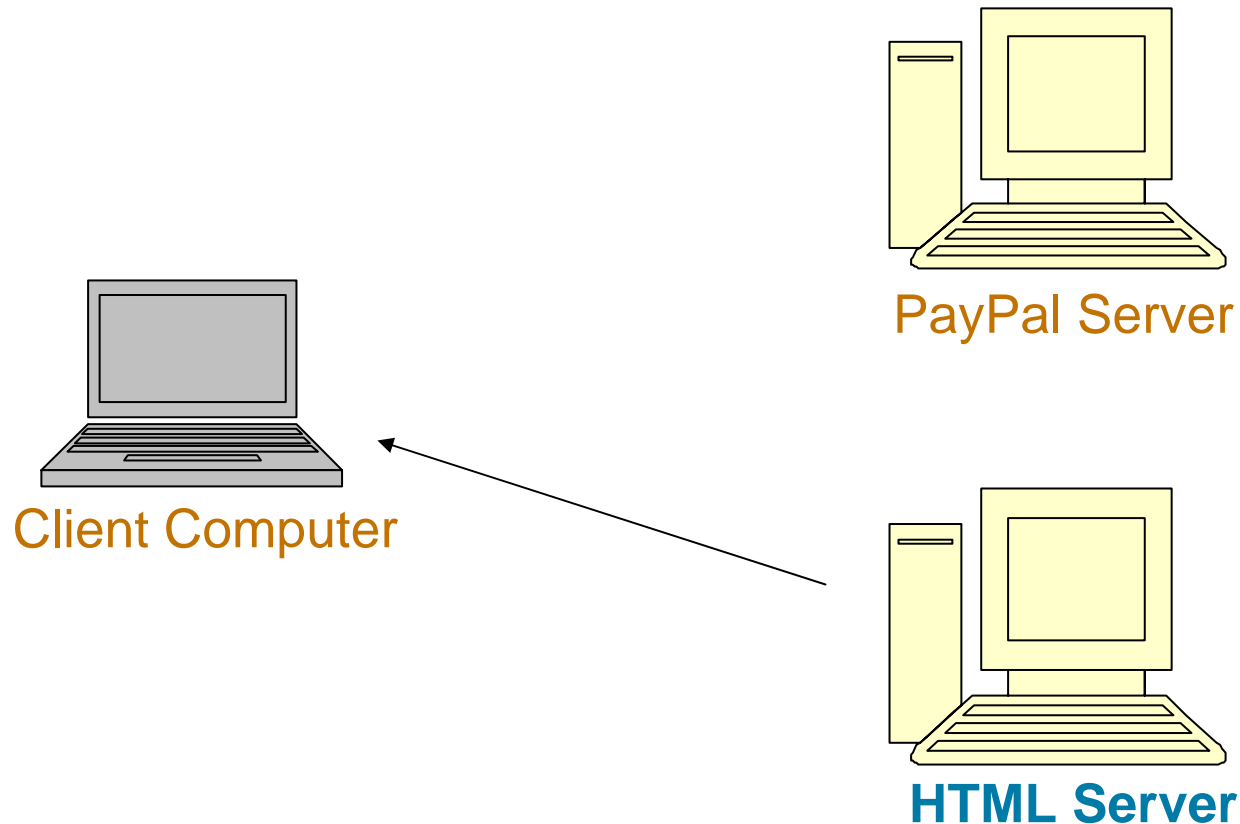
PayPal will never ask you to enter your password in an email.

For more information on protecting yourself from fraud, please review our Security Tips at <https://www.paypal.com/us/securitytips>

Protect Your Password

You should **never** give your PayPal password to anyone, including PayPal employees.

Simple PayPal Payment



HTML Server stores static HTML payment page

HTML Payment Page

Address  <http://www.elianabeam.com/>

Between or Among? or I'll Be Hanged if I'm Hung:

**Terse Verses
for Grammarians and Wannabes**



by Eliana Liatti Beam

Do you know:

- Why *these kind* is bad grammar?
- That *persuade* and *convince* are not interchangeable?
- When to use *lay* or *lie*?
- How to pronounce *ophthamologist* correctly?

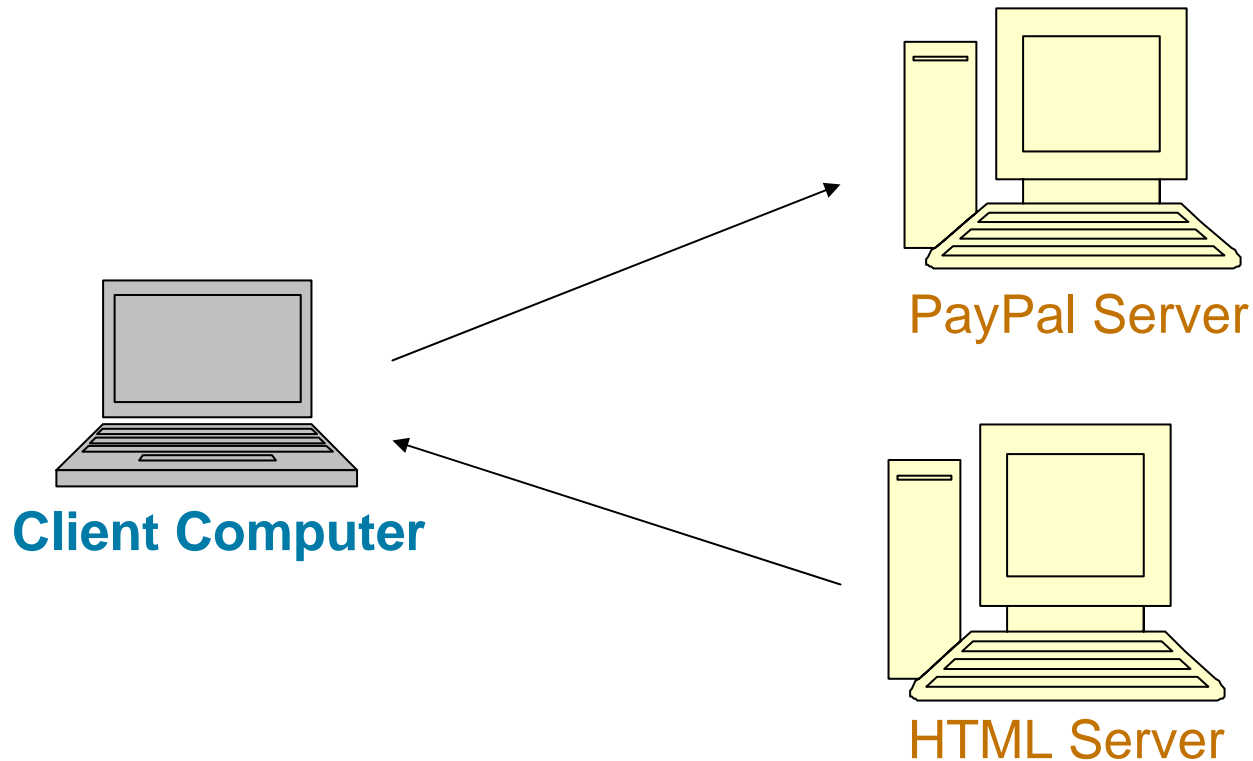
This book of 101 English lessons in terse verse is aimed at "high school" and "highbrow" alike. It is an excellent supplement to English grammar textbooks. If you're too timid to correct your co-workers' speech, slip them this book as a gift. Even linguistic purists will find some revelations in these pages.

In a teacherly tone that includes cajolery and skirts sarcasm - all held together by outrageous humor - Beam never talks down. Lessons cover grammar, word usage, and pronunciation. In each verse the rule under discussion appears in bold type for easy identification. Instructive and entertaining, this book will enliven any discussion and enhance your office, powder room, or coffee table.



Price: \$10 plus \$3.50 shipping

Simple PayPal Payment



Client Computer:

- displays PayPal logo
- contains HTML FORM with hidden variables
- FORM runs <https://www.paypal.com/cgi-bin/webscr>

HTML Page Format

<HTML>

<HEAD>

<TITLE>HTML Page Structure</TITLE>

</HEAD>

<BODY>

Display this text on the screen.

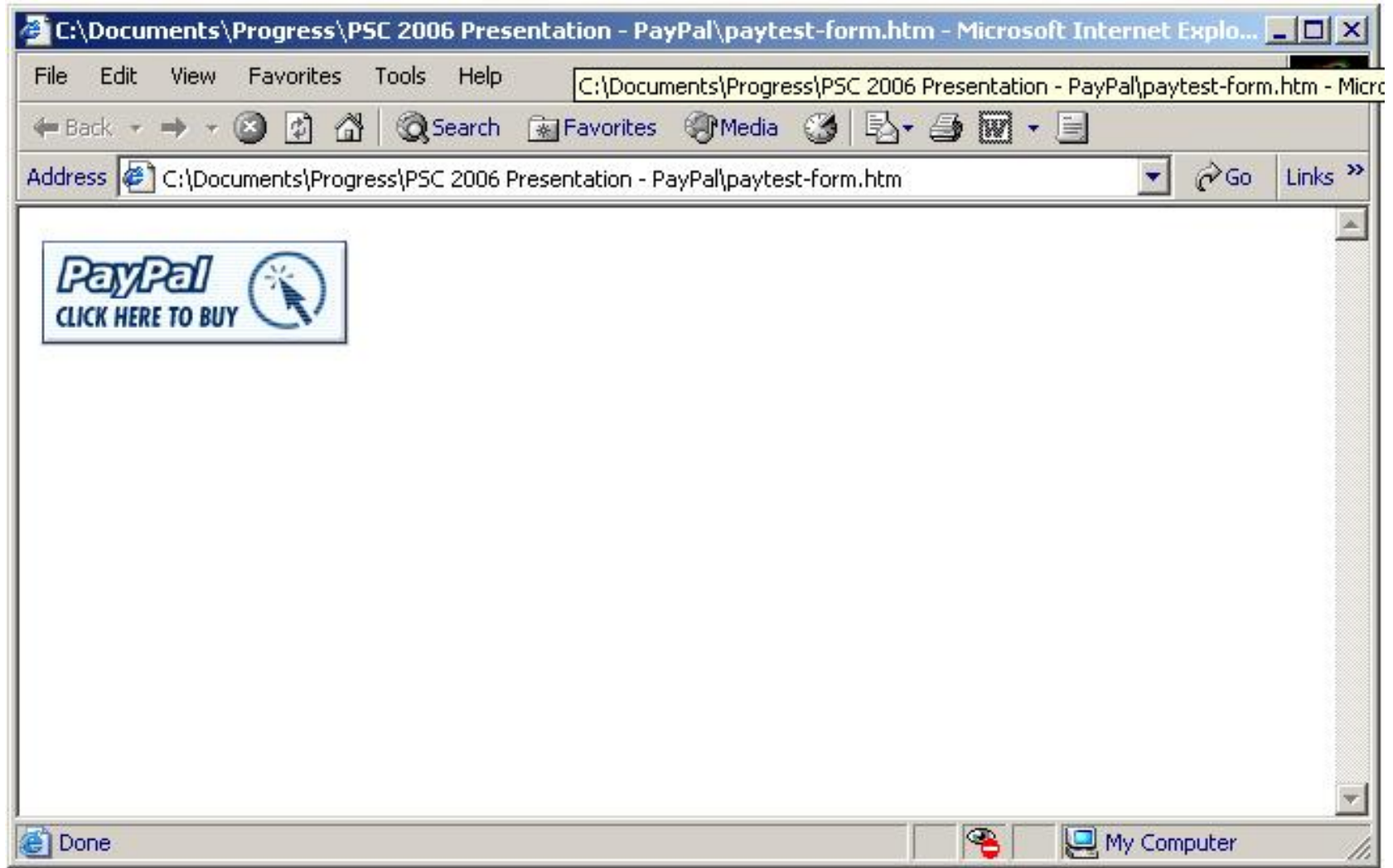
<FORM>

</FORM>

</BODY>

</HTML>

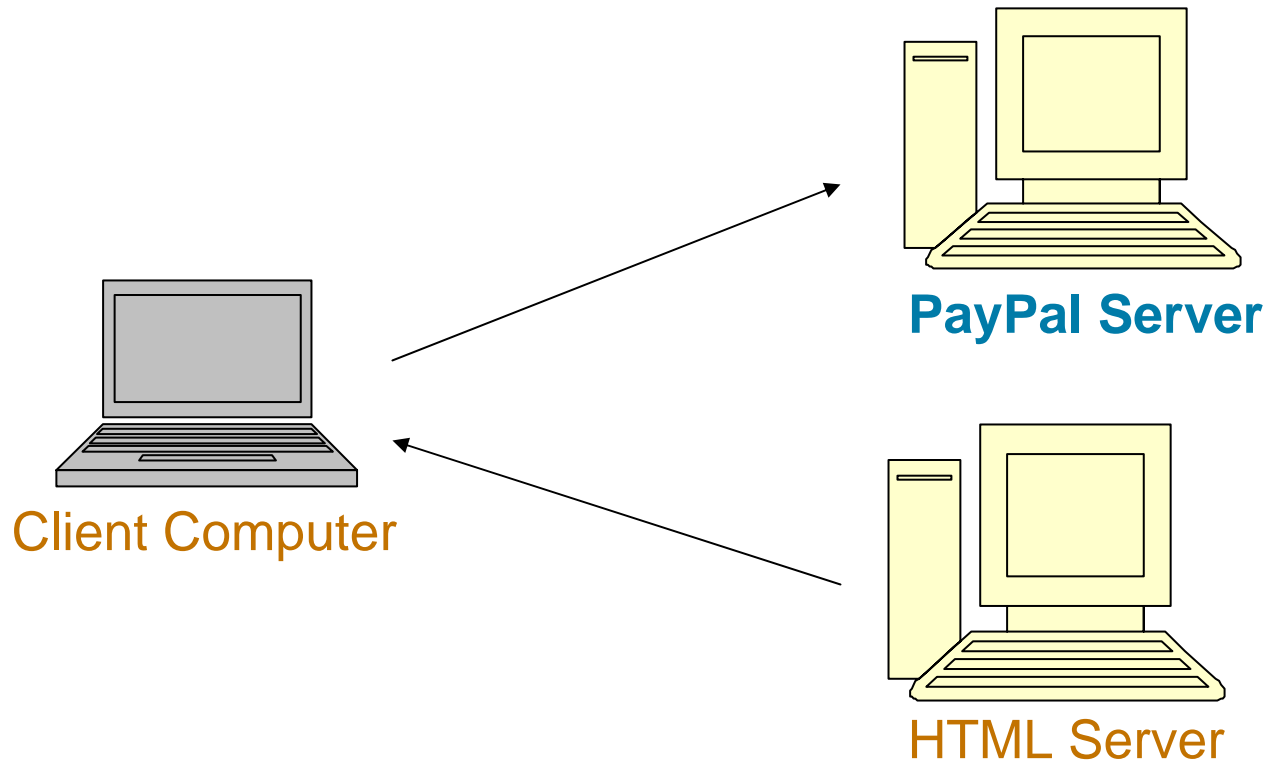
PayPal Logo



HTML FORM Behind PayPal Logo

```
<FORM action="https://www.paypal.com/cgi-bin/webscr" method="Post">
  <input type="hidden" name="cmd" value="_xclick">
  <input type="hidden" name="business"
    value="beampoet@yahoo.com">
  <input type="hidden" name="return"
    value="http://www.elianabeam.com">
  <input type="hidden" name="undefined_quantity" value="1">
  <input type="hidden" name="item_name" value="Between or Among?
  I'll Be Hanged If I'm Hung">
  <input type="hidden" name="item_number" value="ISBN 1-879177-28-5"
  <input type="hidden" name="amount" value="10.00">
  <input type="hidden" name="shipping" value="3.50">
  <input type="hidden" name="shipping2" value="1.00">
  <input type="image"
src="http://images.paypal.com/images/x-click-but5.gif" name="submit">
FORM>
```

Simple PayPal Payment



PayPal Secure Server:

- receives hidden variables
- processes payment
- sends email confirmations to buyer and seller

beampoet@yahoo.com

Checkout


[Secure Transaction](#) 

PayPal is the secure payment processor for **beampoet@yahoo.com**. To continue, please enter the required information below. [Learn more](#) about PayPal.

Pay To: beampoet@yahoo.com

Payment For: Between or Among? I'll Be Hanged If I'm Hung

Quantity:

Currency: U.S. Dollars 

Amount: \$10.00 USD

Shipping & Handling: \$3.50 USD

Total Amount: \$13.50 USD

.....

If you do not currently have a PayPal account, [click here](#)

.....

PayPal Login

Already have a PayPal account? Please log in below

Email Address: [Forgot your email?](#)

PayPal Password: [Forgot your password?](#)

[Continue](#)

beam poet@yahoo.com



Checkout

[Secure Transaction](#) 

PayPal is the secure payment processor for **beam poet@yahoo.com**. To continue, please enter the required information below. [Learn more](#) about PayPal.

Pay To: beam poet@yahoo.com

Payment For: Between or Among? I'll Be Hanged If I'm Hung

Quantity:

Currency: U.S. Dollars 

Amount: \$10.00 USD

Shipping & Handling: \$3.50 USD

Total Amount: \$13.50 USD

If you do not currently have a PayPal account, [click here](#)

PayPal Login

Already have a PayPal account? Please log in below

Email Address: [Forgot your email?](#)


PayPal Password: [Forgot your password?](#)

[Continue](#)

beampoet@yahoo.com



Make Your Payment

[Secure Transaction](#) 

Review the payment details below and click **Pay** to complete your secure payment.

Pay To: beampoet@yahoo.com

User Status: [Verified Premier Member \(8\)](#)

Payment For: Between or Among? I'll Be Hanged If I'm Hung

Quantity: 3

Amount: \$10.00 USD

Shipping & Handling: \$5.50 USD

Total Amount: \$35.50 USD

Source of Funds

PayPal Balance: \$35.50 USD

[More Funding Options](#)

Shipping Information

Ship to: [Add Address](#)

No shipping address required

Message to Seller (Optional)

beam poet@yahoo.com



You Made A Payment

[Secure Transaction](#) 

Payment Information

Your payment of \$0.02 USD for the listed items. A payment receipt for this transaction has been sent to your email address.

Item Title: Between or Among? I'll Be Hanged If I'm Hung

Amount: \$0.01 USD

Shipping & Handling: \$0.01 USD

Item Number: ISBN 1-879177-28-5

Quantity: 1

Total Amount: \$0.02 USD

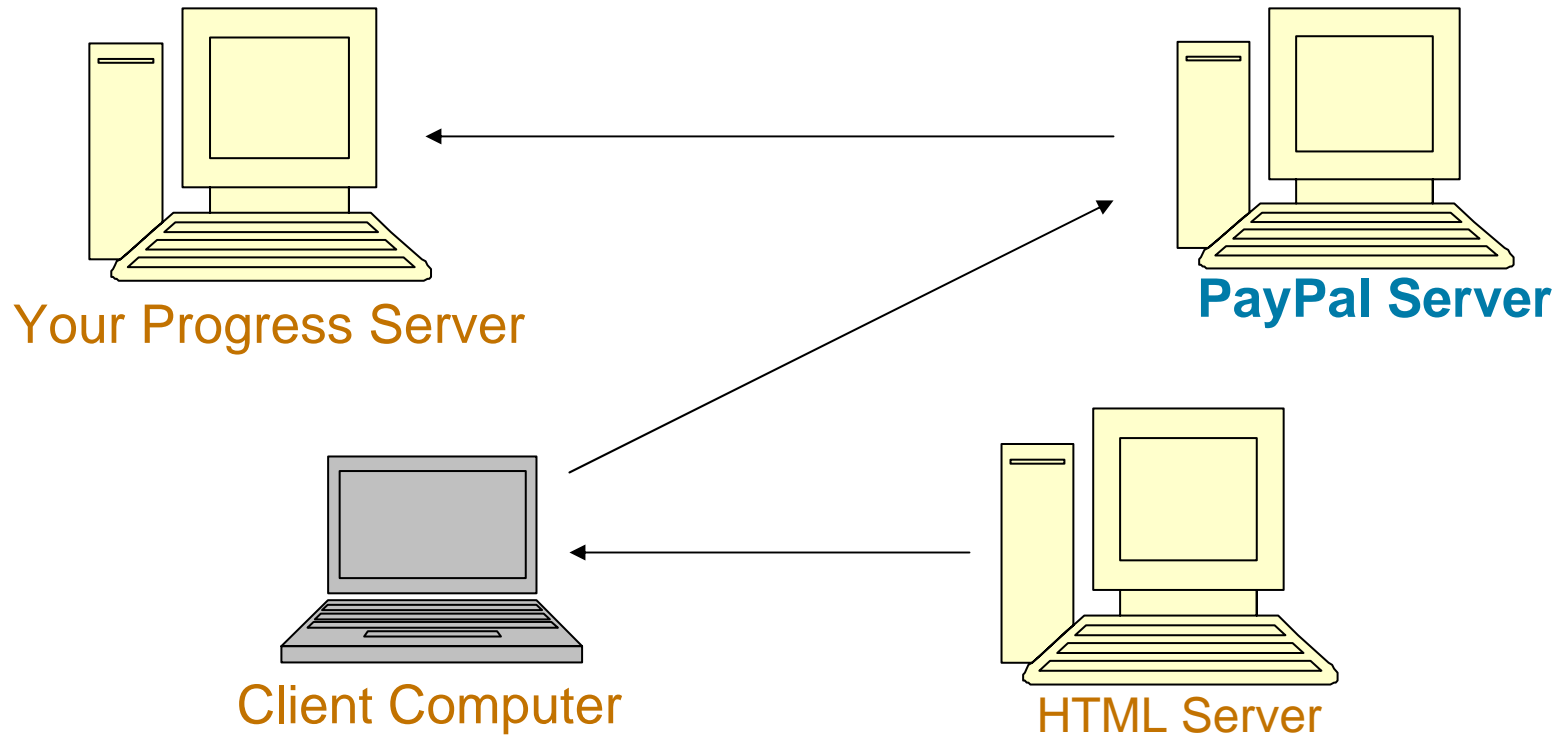
Contact Information

Business Name: Eliana Beam

Contact Email: beam poet@yahoo.com

[Return To Merchant](#)

Instant Payment Notification (IPN)



PayPal Secure Server:

- receives hidden variables, including `notify_url`
- processes payment
- sends email confirmations to buyer and seller
- posts variables and encrypted key to your Progress server

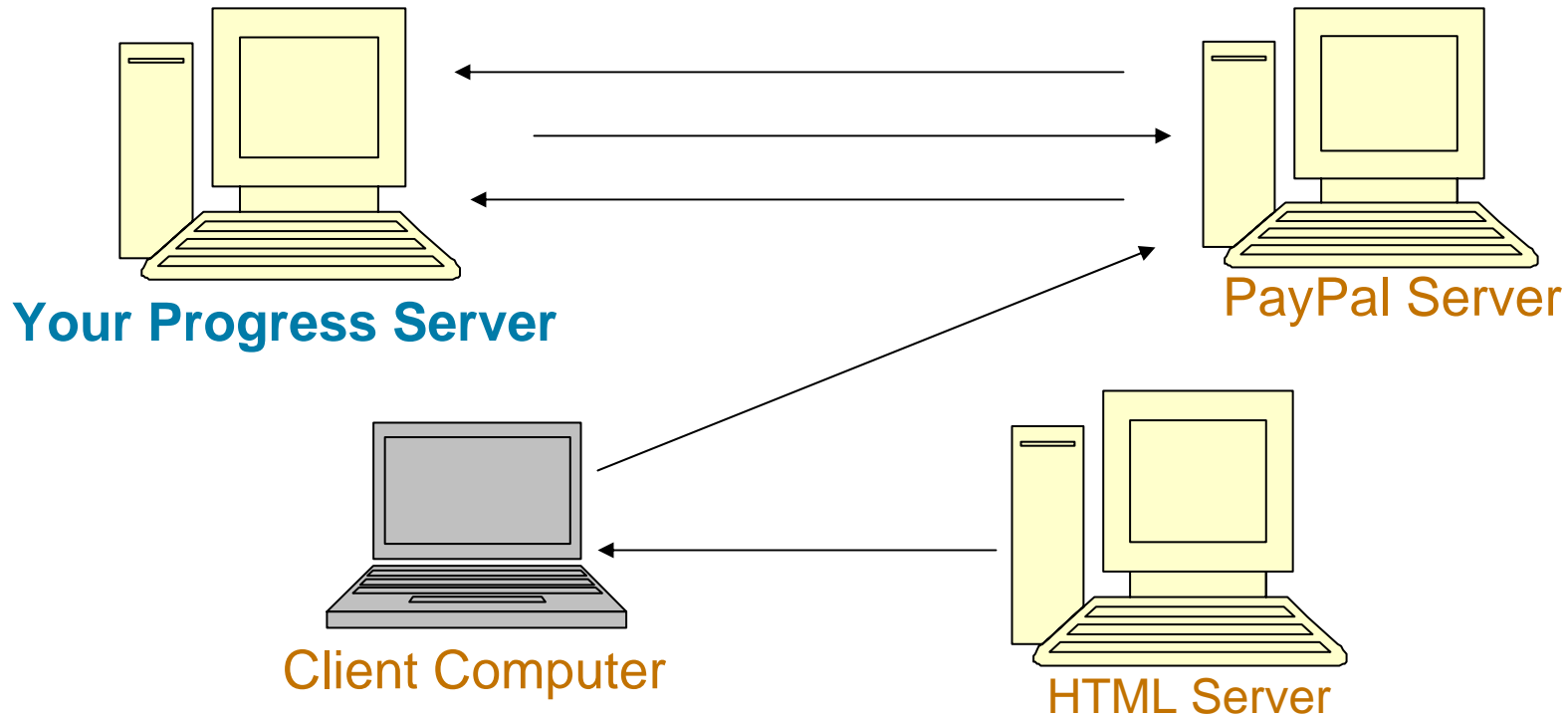
Variables To Redirect URLs

- **notify_url** - PayPal server posts variables to this URL. Default may be entered in PayPal account.
- **return** - User is directed to this URL after payment confirmation.
- **cancel_return** - User is directed to this URL when the payment process is cancelled before completion.

HTML FORM with notify_url

```
<FORM action="https://www.paypal.com/cgi-bin/webscr" method="Post">
  <input type="hidden" name="cmd" value="_xclick">
  <input type="hidden" name="business" value="beampoet@yahoo.com">
  <input type="hidden" name="return"
    value="http://www.yourdomain.com/verify/verifytest.r ">
  <input type="hidden" name="notify_url"
    value="http://www.yourdomain.com/verify/verifytest.r">
  <input type="hidden" name="cancel_return"
    value="http://www.onlineteacher.info/paypal/00cancel.htm">
  <input type="hidden" name="undefined_quantity" value="1">
  <input type="hidden" name="item_name" value="Between or Among? I'll Be
    Hanged If I'm Hung">
  <input type="hidden" name="item_number" value="ISBN 1-879177-28-5">
  <input type="hidden" name="amount" value="10.00">
  <input type="hidden" name="shipping" value="3.50">
  <input type="hidden" name="shipping2" value="1.00">
  <input type="image"
src="http://images.paypal.com/images/x-click-but5.gif" name="submit">
FORM>
```

Instant Payment Notification (IPN)



Your Progress Server:

- receives variables from PayPal server
- posts `verify_sign` value back to PayPal server for verification
- receives verification back from PayPal server
- processes payment and creates records in database

Testing Variables with verifytest.r

```
<HTML>
```

```
<HEAD></HEAD><BODY>
```

```
<!--WSS
```

```
{&OUT}
```

```
"business" = " GET-VALUE("business") "<br>"
"receiver_email" = " GET-VALUE("receiver_email") "<br>"
"payer_email" = " GET-VALUE("payer_email") "<br>"
"item_number" = " GET-VALUE("item_number") "<br>"
"item_name" = " GET-VALUE("item_name") "<br>"
"memo" = " GET-VALUE("memo") "<br>"
"payment_status" = " GET-VALUE("payment_status") "<br>"
"pending_reason" = " GET-VALUE("pending_reason") "<br>"
"payment_date" = " GET-VALUE("payment_date") "<br>"
"mc_gross" = " DECIMAL(GET-VALUE("mc_gross")) "<br>"
"mc_fee" = " DECIMAL(GET-VALUE("mc_fee")) "<br>"
"payment_gross" = " DECIMAL(GET-VALUE("payment_gross")) "<br>"
"payment_fee" = " DECIMAL(GET-VALUE("payment_fee")) "<br>"
"handling" = " GET-VALUE("handling") "<br>"
"invoice" = " GET-VALUE("invoice") "<br>"
```

```

"shipping" = " GET-VALUE("shipping") "<br>"
"shipping2" = " GET-VALUE("shipping2") "<br>"
"tax" = " GET-VALUE("tax") "<br>"
"mc_currency" = " GET-VALUE("mc_currency") "<br>"
"exchange_rate" = " DECIMAL(GET-VALUE("exchange_rate")) "<br>"
"txn_id" = " GET-VALUE("txn_id") "<br>"
"txn_type" = " GET-VALUE("txn_type") "<br>"
"first_name" = " GET-VALUE("first_name") "<br>"
"last_name" = " GET-VALUE("last_name") "<br>"
"payment_type" = " GET-VALUE("payment_type") "<br>"
"verify_sign" = " GET-VALUE("verify_sign") "<br>"
"custom" = " GET-VALUE("custom") "<br>"
"amount" = " GET-VALUE("amount") "<br>"
"item_number_x" = " GET-VALUE("item_number_x") "<br>"
"quantity" = " GET-VALUE("quantity") "<br>"
"undefined_quantity" = " GET-VALUE("undefined_quantity") "<br>"
"cancel_url" = " GET-VALUE("cancel_url") "<br>"
"return" = " GET-VALUE("return") "<br>"
"tax_cart" = " GET-VALUE("tax_cart") "<br>".
-- >
</BODY>
</HTML>

```

Output of verifytest.r

```
business = beampoet@yahoo.com
receiver_email = beampoet@yahoo.com
payer_email = beam@sunbeach.net
payer_id=
first_name = Amy
last_name = Beam
item_number = ISBN 1-879177-28-5
item_name = Between or Among? I'll Be
Hanged If I'm Hung
item_number_x =
quantity = 2
undefined_quantity =
invoice =
mc_gross = .05
mc_fee = .05
amount =
payment_gross = .05
payment_fee = .05
```


handling =
shipping = 0.03
shipping2 =
tax = 0.00
mc_currency = USD
exchange_rate = 0
txn_id = 9LL860216A322472Y
txn_type = web_accept
memo =
payment_type = instant
payment_date = 10:55:38 Mar 10, 2006 PST
payment_status = Completed
pending_reason =
custom =
cancel_return =
notify_url =
return =
verify_sign = A2jeFzIO9fsLluR0ZMk-
OEG3sJJRAvmmpWKRffLv5SM5PBWKw78I4W1Y

Payments To Unverified Accounts

When the recipient of the payment has an unverified account or is not registered with PayPal, values will be:

- **txn_id = 0**
- **business=**
- **receiver_email = paytest333@yahoo.com**
- **payer_email = beam@sunbeach.net**
- **txn_type = web_accept**
- **payment_type = instant**
- **payment_status = Pending**
- **pending_reason = unilateral**

If the payment goes unclaimed, PayPal will refund it automatically.

Viewing Variable Values

- To see the values of the passed variables, both **return** and **notify_url** must be the URL of your test procedure:

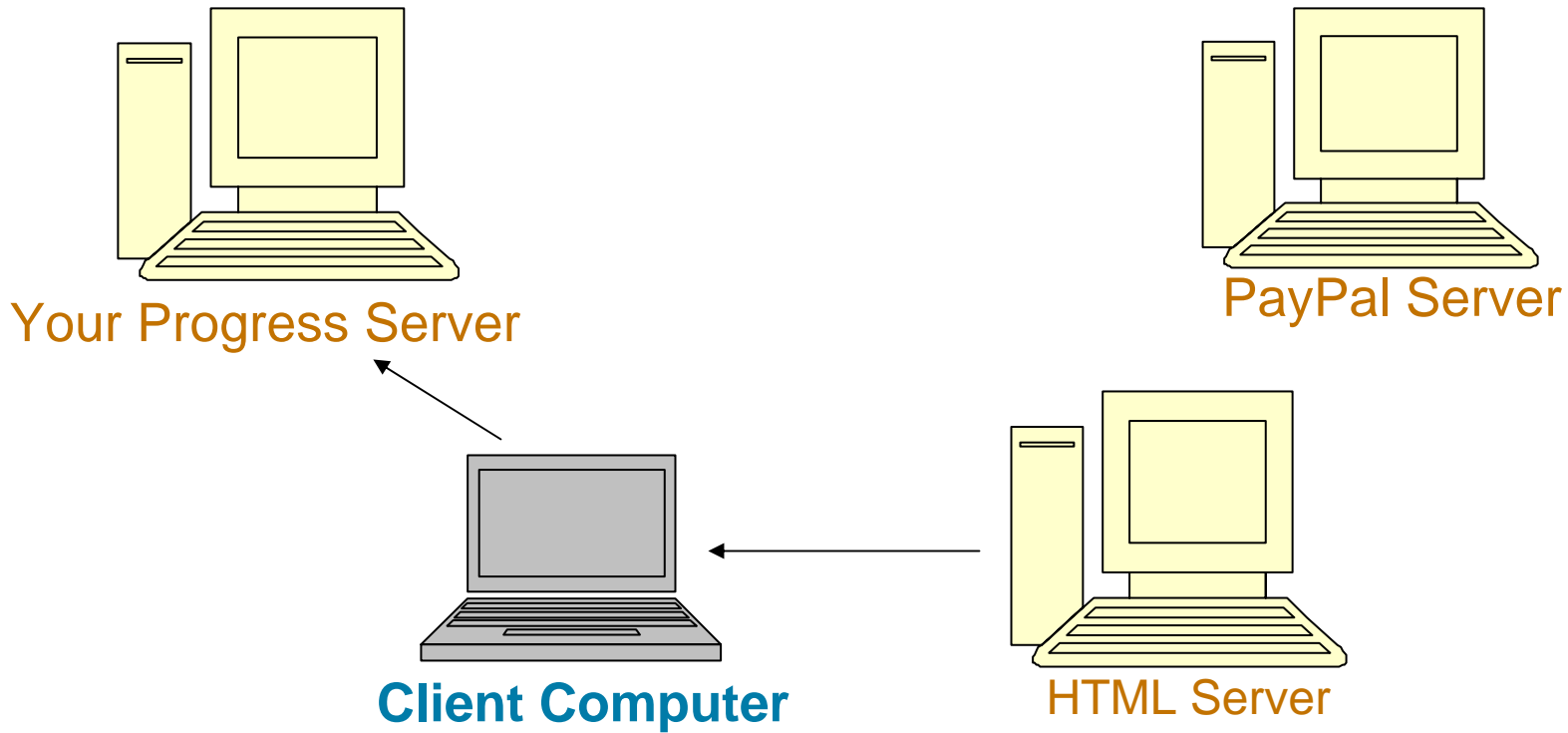
```
<input type="hidden" name="return" value=  
"http://www.yourdomain.com/scripts/cgiip.exe/WService=pp_broker/verify/  
verifytest.r ">  
<input type="hidden" name="notify_url" value=  
"http://www.yourdomain.com/scripts/cgiip.exe/WService=pp_broker/verify/  
verifytest.r ">
```

- After you finish your testing, set **return** to the URL to which you want to send the user after payment is completed.
- After you finish testing, the URL that **notify_url** calls (verify.r) should have *no* screen interaction.

Use METHOD To Hide Variables

- In an HTML FORM statement, the value of METHOD determines whether variables are displayed in the URL.
- METHOD="post" - Do not display variables in URL.
- METHOD="get" - Display variables in URL.
- Use of METHOD will *not* prevent a user from clicking "View," "Source" and reading the value of hidden variables used in the HTML FORM.

Side Trip To Your Progress Server



Client Computer:

- displays PayPal logo
- HTML FORM sends hidden variables to your Progress Server
- HTML FORM does *not* include price or other sensitive information

FORM Sent To Progress Server

<HTML>

<HEAD>

</HEAD>

<BODY>

Enter quantity:

<FORM action =

"http://www.yourdomain.com/scripts/cgiip.exe/WService=pp_broker/
verify/verifylicense.r" method="post">

<input type="text" name="quantity" value="1"><p>

<input type="hidden" name="business"
value="beampoet@yahoo.com">

<input type="hidden" name="item_number" value="1879177285">

<input type="hidden" name="custom" value="xyz-co">

<input type="image" src=

"http://images.paypal.com/images/x-click-but5.gif" name="submit">

</FORM>

</BODY>

</HTML>

PayPal Logo



- METHOD = "post"
- business - PayPal email login
- item_number – identifies item in Progress database
- custom - use with item_number to create a 2-field unique index

Progress Server Looks Up Values

```
<HTML><HEAD></HEAD>
```

```
<BODY> please wait while we connect to PayPal's secure server.
```

```
<!--WSS
```

```
DEFINE VAR vbusiness          AS CHAR NO-UNDO.
```

```
DEFINE VAR vitemname          AS CHAR NO-UNDO.
```

```
DEFINE VAR vitemnumber        AS INTEGER NO-UNDO.
```

```
DEFINE VAR vquantity          AS INTEGER NO-UNDO.
```

```
DEFINE VAR vamount             AS DECIMAL NO-UNDO.
```

```
DEFINE VAR vshipping           AS DECIMAL NO-UNDO.
```

```
DEFINE VAR vshipping2         AS DECIMAL NO-UNDO.
```

```
DEFINE VAR vurlcancel          AS CHAR INITIAL
```

```
"http://www.domain.com/cancel.htm" NO-UNDO.
```

```
DEFINE VAR vurlreturn          AS CHAR INITIAL
```

```
"http://www.yourdomain.com/scripts/cgiip.exe/WService=pp_broker/verify/thankyou.r" NO-UNDO.
```

```
DEFINE VAR vurlnotify          AS CHAR INITIAL
```

```
"http://www.yourdomain.com/scripts/cgiip.exe/WService=pp_broker/verify/verify.r" NO-UNDO.
```

```
DEFINE VAR cmd AS CHAR INITIAL "_xclick" NO-UNDO.
```

```
/****** set variable values to pass to PayPal server *****/
```

```
ASSIGN /* passed from HTML FORM */
```

```
  vbusiness      = GET-VALUE("business")  
  vitemnumber    = GET-VALUE("item_number")  
  vcustom        = GET-VALUE("custom")  
  vquantity      = GET-VALUE("quantity").
```

```
IF GET-VALUE("test1")= "xy" THEN vamount = ".01".
```

```
  /* passed from HTML FORM; used for testing to set price to .01 */
```

```
ELSE DO: /* look up values in db */
```

```
  FIND item WHERE
```

```
    item.number   = vitemnumber AND  
    item.company = vcustom NO-LOCK NO-ERROR.
```

```
IF AVAILABLE item THEN ASSIGN
```

```
  vitemname = item.name  
  vamount   = item.price  
  vurlreturn = item.url /* comment out this value for testing */  
  vshipping = item.ship1  
  vshipping2 = item.ship-more.
```

```
ELSE /* process error condition */ .
```

```
END.
```

```
FIND payer WHERE payer.payer_email = vbusiness NO-LOCK NO-ERROR.  
IF AVAILABLE payer THEN DO:
```

```
    IF payer.licensed= "yes" THEN DO:
```

```
-->
```

```
<SCRIPT LANGUAGE ='JavaScript'>
```

```
window.location= "https://www.paypal.com/cgi-  
bin/webscr?cmd=`cmd` &quantity=`vquantity` &amount=`vamount` &shipping=  
vshipping` &shipping2=`vshipping2` &business=`vbusiness` &item_number=`vite  
mnumber` &item_name=`vitemname` &return=`vurlreturn` &cancel_return=`vurl  
cancel` &notify_url=`vurlnotify` "
```

```
</SCRIPT>
```

```
<!--WSS
```

```
    END. /* if payer.licensed=yes */
```

```
END. /* if avail payer */
```

```
-->
```

```
</BODY>
```

```
</HTML>
```

Use of Symbols in the URL String

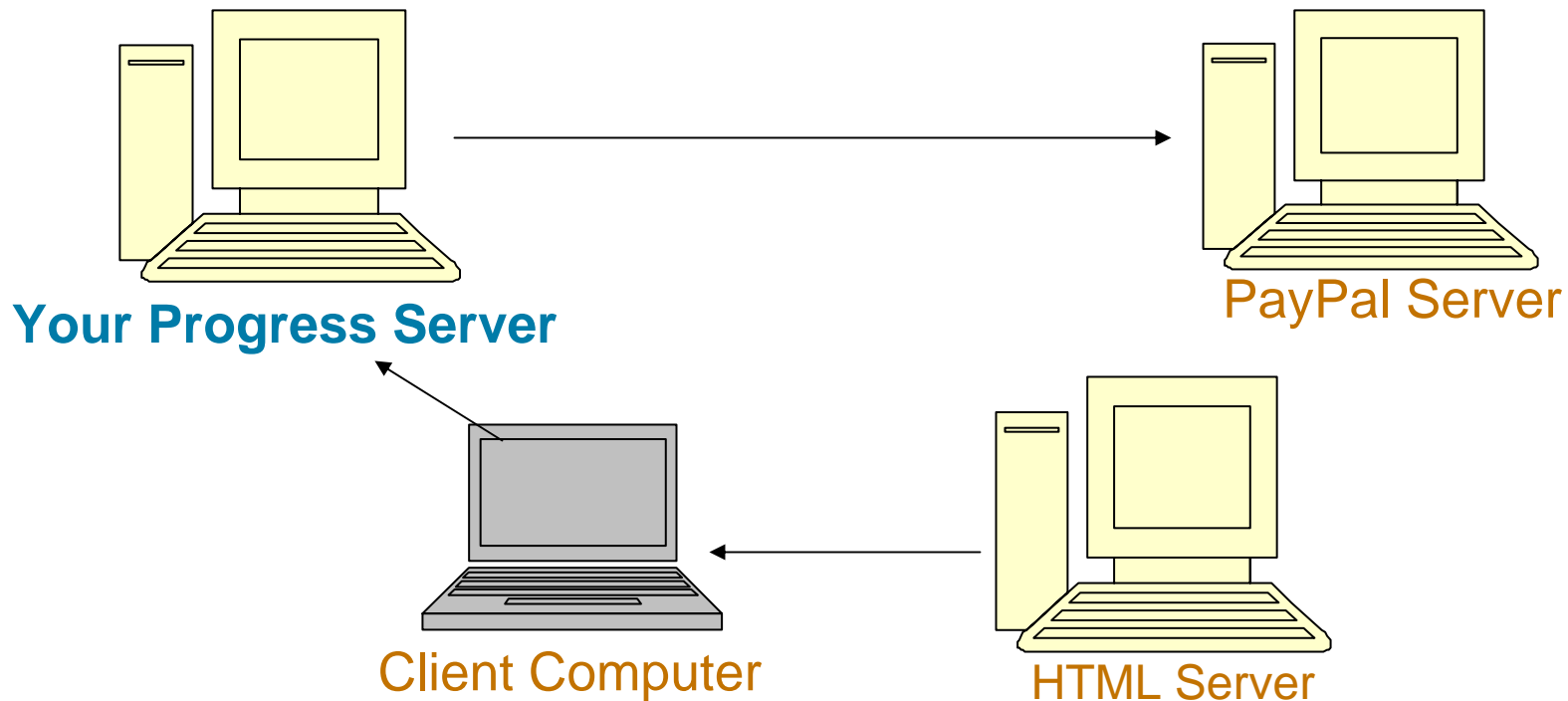
When creating the URL string:

- After **webscr** use a **?**.
- Separate each name/value pair with **&**.
- Use **%20** for each space in the URL.
- Encrypt the URL.

Example:

**https://www.paypal.com/cgi-bin/webscr
?cmd=_xclick&amount=5.45&business=beam@
sunbeach.net&item_name=Lesson%201&shipping=3.50**

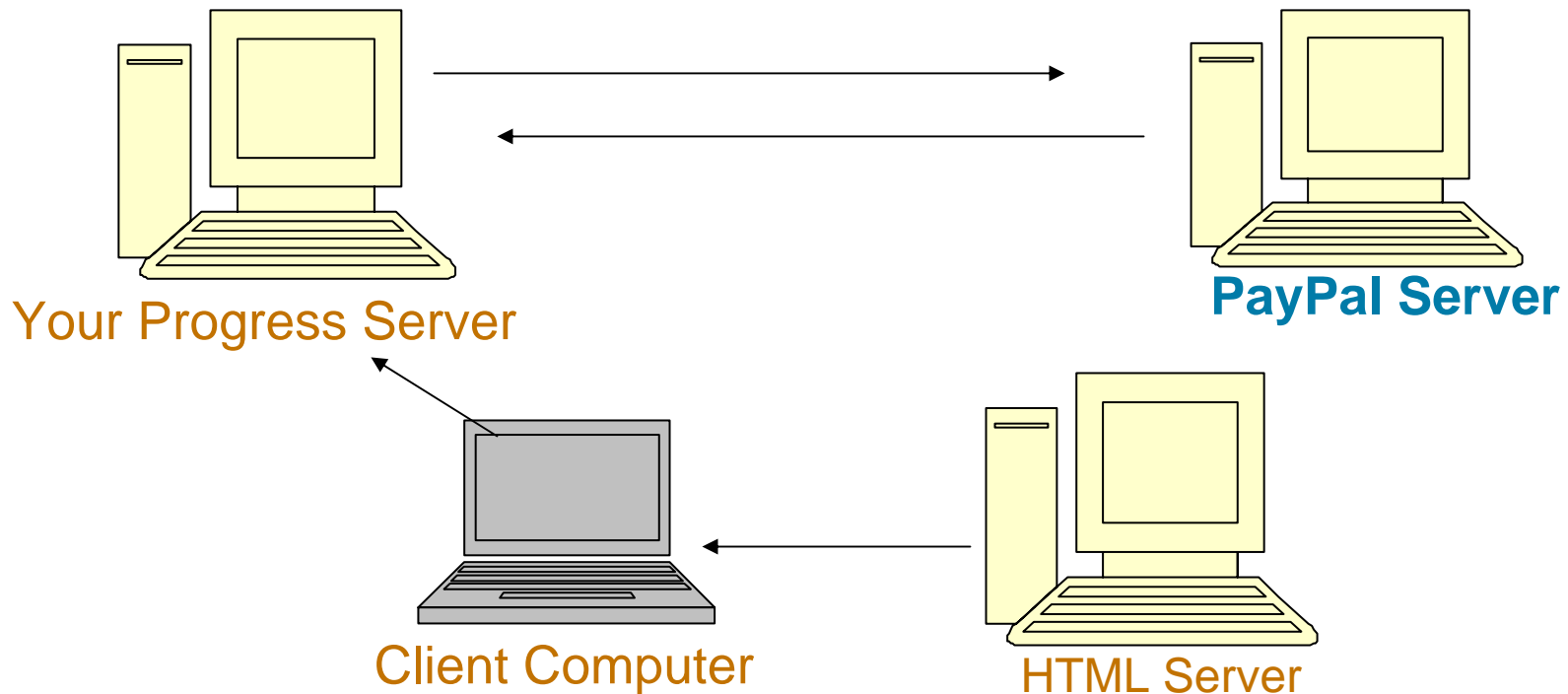
Instant Payment Notification (IPN)



Your Progress Server:

- receives variables from client computer (HTML FORM)
- looks up seller and item information in database
- verifies seller's license to sell
- passes seller and item information with JavaScript
- runs <https://www.paypal.com/cgi-bin/webscr>

Instant Payment Notification (IPN)



PayPal Secure Server:

- receives hidden variables, including `notify_url`
- processes payment
- sends email confirmations to buyer and seller
- posts variables and encrypted key to `notify_url`

Create Records in OpenEdge DB

TABLES

- payer

- payment

FIELDS

- payer_id (unique)
 - business (unique)
 - payer_email
 - first_name
 - last_name
 - payer_status
 - create_date
 - licensed
-
- txn_id (unique)
 - payer_email
 - business_email
 - receiver_email
 - item_number
 - custom
 - trans_date
 - tx

PayPal verify_sign Variable

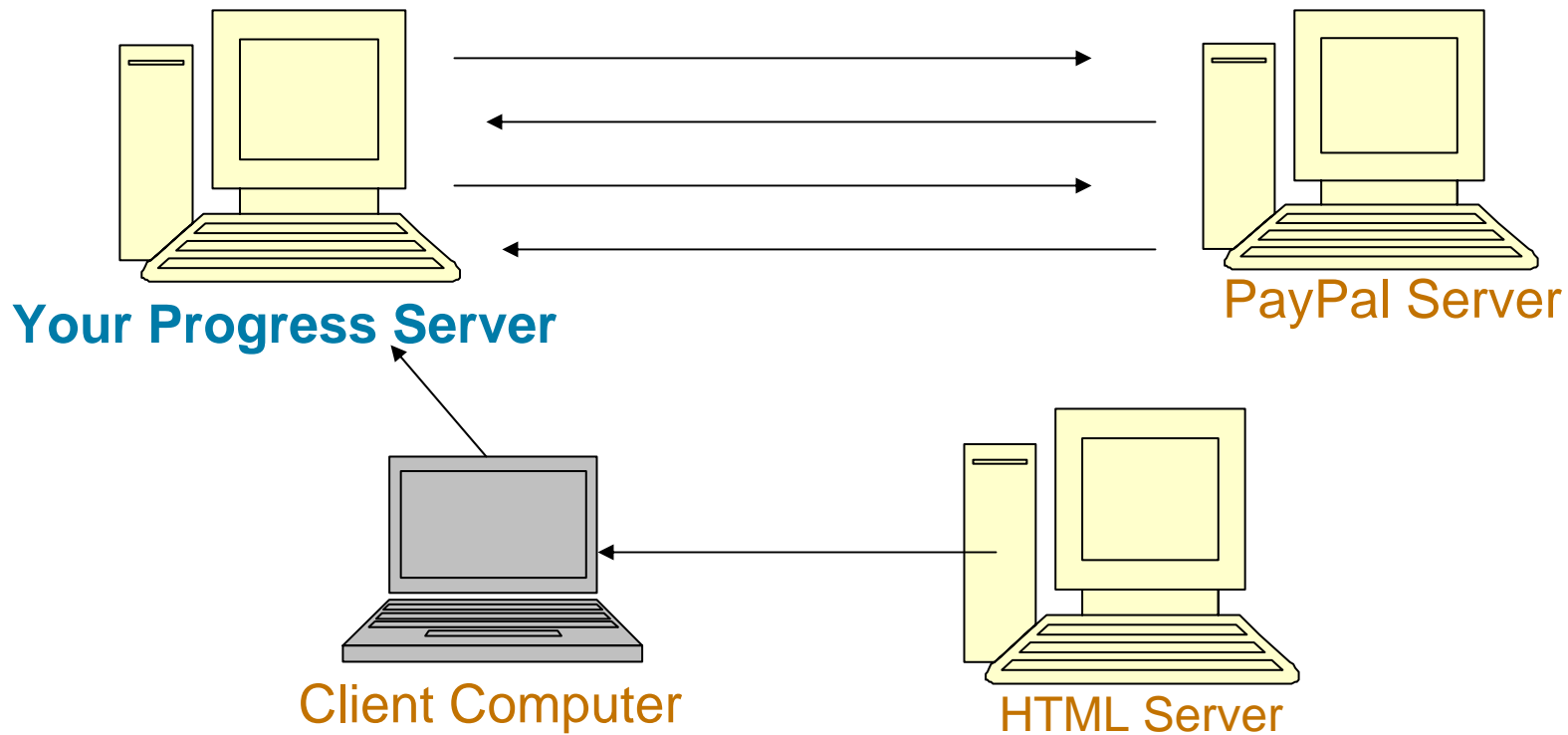
- PayPal server posts the variable **verify_sign** to **notify_url**.

- **verify_sign** is a long encrypted string:

A2jeFzIO9fsLIuR0ZMkEG3sJJRAvmmpWKRffLv5SM5PBWKw78I4W1Y

- The Progress server posts **verify_sign** back to the PayPal Server.
- The PayPal server posts one word back to the **notify_url** program:
 - **verified** or
 - **unverified**

Instant Payment Notification (IPN)



Your Progress Server:

- receives variables from PayPal server
- posts `verify_sign` value back to PayPal server for verification
- receives verification back from PayPal server
- creates records in database

Shopping Carts and Subscriptions

PayPal cmd variable runs different programs:

- Buy Now (1 item): cmd = `_xclick`
- Shopping Cart: cmd = `_cart`
- Subscription: cmd = `_ext-enter`

Different variables apply to different programs.

PayPal Partial List of Variables

- | | | |
|------------------------|----------------------|--------------------|
| 1. business | 24. Payment_type | 47. country |
| 2. txn_id | 25. Payment_gross | 48. PayerInfo |
| 3. Txn_type | 26. Payment_fee | 49. payerstatus |
| 4. parent_txn_id | 27. tax_cart | 50. memo |
| 5. receiver_email | 28. OrderDescription | 51. no_note |
| 6. payer_email | 29. OrderTotal | 52. PaymentStatus |
| 7. first_name | 30. MaxAmount | 53. PaymentDetails |
| 8. last_name | 31. PaymentAction | 54. mc_gross |
| 9. custom | 32. ItemTotal | 55. mc_currency |
| 10. item_number | 33. ShippingTotal | 56. currency_code |
| 11. item_numer_x | 34. HandlingTotal | 57. currencyID |
| 12. item_name | 35. TaxTotal | 58. ExchangeRate |
| 13. quantity | 36. InvoiceID | 59. TaxAmount |
| 14. undefined_quantity | 37. FirstName | 60. FeeAmount |
| 15. cancel_return | 38. LastName | 61. SettleAmount |
| 16. notify_url | 39. ContactPhone | 62. OrderTotal |
| 17. return | 40. Address | 63. MaxAmount |
| 18. invoice | 41. AddressStatus | 64. tx |
| 19. handling | 42. address1 | 65. auth_id |
| 20. shipping | 43. address2 | 66. auth_status |
| 21. shipping2 | 44. city | 67. verify_sign |
| 22. no_shipping | 45. state | |
| 23. tax | 46. zip | |

Links To Documentation and Resources

- Amy L. Beam, Ed.D., credentials and training
<http://www.amybeam.info>
<http://www.progresstraining.info>
- PayPal eligible countries
http://www.paypal.com/cgi-bin/webscr?cmd=_display-approved-signup-countries-outside
- PayPal registration process
https://www.paypal.com/cgi-bin/webscr?cmd=_registration-run
- PayPal developer login
<https://developer.paypal.com>
- PayPal Developer Network home page
<https://www.paypal.com/cgi-bin/webscr?cmd=xpt/developer/Intro-outside>
- PayPal Sandbox User Guide
https://developer.paypal.com/en_US/pdf/PP_Sandbox_UserGuide.pdf
- PayPal Website Payments Standard Integration Guide
https://www.paypal.com/en_us/pdf/PP_WebsitePaymentsStandard_IntegrationGuide.pdf
- PayPal Website Payments Pro Integration Guide
https://www.paypal.com/en_US/pdf/PP_WebsitePaymentsPro_IntegrationGuide.pdf
- PayPal IPN technical specifications
<https://www.paypal.com/cgi-bin/webscr?cmd=p/xcl/rec/ipn-techview-outside>
- PayPal Shopping Cart
<https://www.paypal.com/shoppingcart>

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