Kolich, Mark S (PSG/HPL Innovation Prgm)

From: Anne Moyrong [apmoyrong@fedex.com]
Sent: Tuesday, April 22, 2008 4:19 PM
To: Kolich, Mark S (PSG/HPL Innovation Prgm)
Subject: RE: Validating 12-Digit FedEx Express Trcking Numbers (WAS RE: FedEx API Tracking
                 Services -- Integrating with HP Consumer Web Portal Product)

Hi Mark - please see below on Express Tracking Number check digit calculation. Please let me
know if you have any questions.

================================

ETN Check Digit Calculation
The tracking number check digit is calculated as a weighted MOD 11 check digit on the 11
digit data string, based on an alternate 1, 3, 7 weighting of the data characters.

1. The calculation begins by assigning a weight of 1 to the least significant digit (the
digit in position 11). Each digit in the string is alternately assigned a weight of 1, 3, or
7.

Tracking number 11 byte data string:

0 1 2 3 4 5 6 7 8 9 8

Assign 1 or 3 or 7 starting in the eleventh position with 1 and working to the left:

0 1 2 3 4 5 6 7 8 9 8

3 1 7 3 1 7 3 1 7 3 1

2. Multiply each digit in the 11 byte data string by the weight assigned to it - either 1 or
3 or 7:

0x3=0; 1x1=1; 2x7=14; 3x3=9; 4x1=4; 5x7=35; 6x3=18; 7x1=7; 8x7=56; 9x3=27; 8x1=8;

3. Calculate the sum by adding all the products together:

0 + 1 + 14 + 9 + 4 + 35 + 18 + 7 + 56 + 27 + 8 = 179

4. Divide the sum by 11:

179 / 11 = 16 remainder 3

NOTE: If the remainder is 10, the check digit should be 0 (zero). If there is no remainder,
the check digit should be 0 (zero).

6. Tracking number with check digit:

0 1 2 3 4 5 6 7 8 9 8 3

================================
Anne Moyrong
FedEx Services
(510.402.4089
www.fedex.com

Technical Support: 877.339.2774

-----Original Message-----
From: Kolich, Mark S (PSG/HPL Innovation Prgm) [mailto:mark.s.kolich@hp.com]
Sent: Tuesday, April 22, 2008 4:04 PM
To: Hiram Shepard Jr.; Anne Moyrong
Cc: Tim Keefe
Subject: Validating 12-Digit FedEx Express Trcking Numbers (WAS RE:
FedEx API Tracking Services -- Integrating with HP Consumer Web Portal
Product)

Hi Hiram,

Thanks for your message. I look forward to your reply re: our solution options.

Last week, I had a few discussions with Tim Keefe via email regarding the check digit
algorithm for FedEx tracking numbers. Specifically, Tim sent me some great documentation on
validating 15-digit FedEx Ground tracking numbers using the FedEx published check digit
algorithm (attached). However, I am still looking for some official documentation on
validating 12-digit FedEx Express tracking numbers.

Please provide any official documentation you have with regards to validating 12-digit FedEx
Express tracking numbers at your earliest.
The instructions/documentation I need is similar to the attached.

Thanks!

Regards,
Mark

-----Original Message-----
From: Hiram Shepard Jr. [mailto:hiram.shepard@fedex.com]
Sent: Tuesday, April 22, 2008 12:26 PM
To: Kolich, Mark S (PSG/HPL Innovation Prgm)
Subject: RE: FedEx API Tracking Services -- Integrating with HP Consumer Web Portal Product

Mark -
Your information was given to me by our Web Integrated Solutions team regarding your interest
in integrating FedEx functionality into the web-portal product HP is developing. I work on
the Compatible Solutions team and can assist you with the FedEx integration.

Since your product is unique, I want to make sure you are using the appropriate FedEx
solution. I'm in discussions with various groups internally to ensure that you and your team
are heading down the right path. I will contact you with further information on the
direction your team should take once confirmed.

Feel free to contact me if you would like to discuss further or have any questions.

Thanks,

Hiram Shepard Jr
Channel Manager
Digital Access Marketing
901-263-8410 Office

-----Original Message-----
From: Kolich, Mark S (PSG/HPL Innovation Prgm)
Sent: Wednesday, April 09, 2008 10:02 AM
To: 'Anne Moyrong'; Morgan Pickel
Cc: Ozaki, Carol
Subject: RE: FedEx API Tracking Services -- Integrating with HP Consumer Web Portal Product

Hi Anne,

Thanks for the follow-up and for the confirmation on the tracking number formats.

I've attached some documents which may give you and the WISC a better idea of what we are
working on. Please note that these are HP confidential specs and documents.

In a nutshell my team and I are building a software portal product for HP Consumer PC's
called JumpPage. It's a portal aimed at users who don't have much PC experience, e.g.,
soccer moms, grandparents, and the like. I've attached a screen shot of our portal to give
you a better idea of what we are building; a picture is worth a thousand words, right? In
the screenshot, you'll notice several modules (a.k.a., widgets). I am building a new package
tracking module for our users as described in the attached investigation report PDF.

We are planning to launch a beta version of this portal product in the near future.

Thanks again.

Regards,
Mark

-----Original Message-----
From: Anne Moyrong [mailto:apmoyrong@fedex.com]
Sent: Wednesday, April 09, 2008 9:13 AM
To: Kolich, Mark S (PSG/HPL Innovation Prgm); Morgan Pickel
Cc: Ozaki, Carol
Subject: RE: FedEx API Tracking Services -- Integrating with HP Consumer Web Portal Product

Hi Mark,

Do you mean the length of our tracking #s or the actual format of the barcode on the labels?
Express tracking #s are 12 digits, Ground tracking #s are 15 digits.

I will have your assigned WISC address your question about the API keys, I should be hearing
from them today.

Regards,
Anne

Anne Moyrong
FedEx Services
(510.402.4089
www.fedex.com

Technical Support: 877.339.2774

-----Original Message-----

From: Kolich, Mark S (PSG/HPL Innovation Prgm) [mailto:mark.s.kolich@hp.com]
Sent: Wednesday, April 09, 2008 9:05 AM
To: Anne Moyrong; Morgan Pickel
Cc: Ozaki, Carol
Subject: RE: FedEx API Tracking Services -- Integrating with HP Consumer Web Portal Product

Hi Anne,

Thanks for the pointers. Yes, I did register online with the FedEx DRC and downloaded a lot
of good content with regards to the FedEx Web Services Tracking API.

My main concerns are as follows:

To use the FedEx Web Services Tracking API, we have to register with FedEx. At registration,
we are given a username and other authentication credentials we use in our applications to
connect with FedEx. Since our application is installed on HP PC's, and potentially will be
used by millions of HP customers in the near future, some carriers require us to have a
unique API key and user ID for each user of our web-portal product. That model will not work
for us.

So, I wanted to confirm with you guys that I could register once with FedEx, and then use a
single API key for each user that will track FedEx packages through the "module" that I am
developing. Again, some carriers will not allow this due to our expected number of users.

I'd also like to get confirmation from the teams at FedEx regarding your tracking number
formats. I wasn't able to find any official documentation on FedEx.com which lists your
various tracking number formats.

If you'd like to setup a call to discuss things further, or need any other information from
me via email, please let me know. I can be reached at 650-857-6145.

Thanks!

Regards,
Mark

-----Original Message-----
From: Anne Moyrong [mailto:apmoyrong@fedex.com]
Sent: Wednesday, April 09, 2008 8:44 AM
To: Morgan Pickel; Kolich, Mark S (PSG/HPL Innovation Prgm)
Cc: Ozaki, Carol
Subject: RE: FedEx API Tracking Services -- Integrating with HP Consumer Web Portal Product

Hi Mark,

Technical specs and other documentation about our Web Services product is on our website at:

http://www.fedex.com/us/developer/

The Developer Resource Center (DRC) requires you to register for a fedex.com ID, if you have
one already, you can use the same ID to register and access the documents in the DRC.

I am going to have a Web Integrated Solutions Consultant assigned to you for this project -
while I am HP's overall FedEx IT contact, our Web Consultants are subject matter experts in
Web Services and can answer any technical questions you may have. Once I have a WISC

assigned to your project, I will let you know their contact info - you should be hearing from me again no later than tomorrow on this. Please let me know if you have any questions.

Best Regards,
Anne

Anne Moyrong
FedEx Services
(510.402.4089
www.fedex.com

Technical Support: 877.339.2774

-----Original Message-----
From: Morgan Pickel
Sent: Wednesday, April 09, 2008 8:37 AM
To: Kolich, Mark S (PSG/HPL Innovation Prgm); Anne Moyrong
Cc: Ozaki, Carol
Subject: RE: FedEx API Tracking Services -- Integrating with HP Consumer Web Portal Product

Hi Mark,
Per my phone message, our HP Team integration consultant Anne Moyrong
(copied) should be able to assist.

Hi Anne,
Can you please touch base with Mark per the email below? Please let me know if/how I can
assist.

Thanks!
Morgan
916 783-4304

-----Original Message-----
From: Kolich, Mark S (PSG/HPL Innovation Prgm) [mailto:mark.s.kolich@hp.com]
Sent: Tuesday, April 08, 2008 3:55 PM
To: Morgan Pickel
Cc: Ozaki, Carol
Subject: FedEx API Tracking Services -- Integrating with HP Consumer Web Portal Product

Hi Morgan,

My name is Mark Kolich I work at HP (Palo Alto, CA) in HP's Personal Systems Innovation
Group. I received your name and email from HP's Global Logistics team.

I am developing a package tracking "widget/module" for a home user web-portal product under
development by HP. Similar to a module that is available in My Yahoo! or iGoogle. The
customers using our product are home users (basic consumers) who will most likely not have a
FedEx account number or understand much about the web. One of the many features we'd like to
develop into our product includes the ability to ...

* Allow customers to enter a FedEx tracking number in the widget.
* Our product uses the FedEx Web Services Tracking API to extract current tracking
information.
* Display the tracking information extracted from FedEx.com in our widget.

HP is expecting at least one-million customers will use this web-portal product.

Given our special needs and the volume of users we'd like to configure, I've been asked to contact our HP-FedEx rep for assistance. Do you know of anyone at FedEx I could work with to verify that the FedEx Tracking API will allow us to integrate this type of functionality into our web-portal product? Specifically, someone who we can ask specific technical questions on the FedEx Web Services Tracking API and connecting services.

Feel free to contact me via email or phone. I can be reached at 650-857-6145.

Thanks for your help, and we look forward to hearing from you!

Regards,
Mark