

## **Footprints Web Services API**

**Version 2.0**

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## Background

The Footprints Network exposes a Web Service API to allow for donations to Footprints projects by third-party applications. This API can be accessed via SOAP, HTTP GET or HTTP POST.

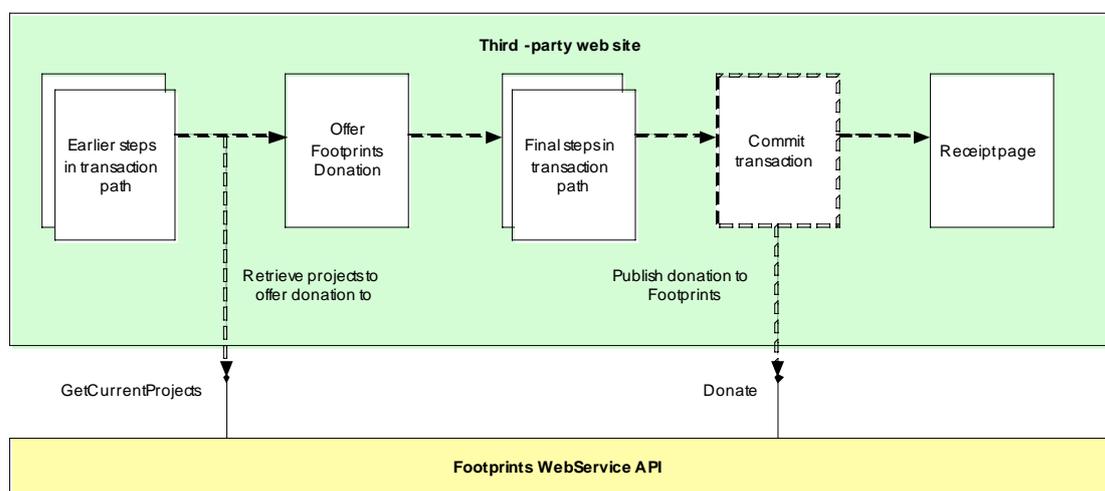
This document covers the API details and the expected method of integration at a high level.

The actual IA for the donation functionality can be implemented in various ways – the donation amount and the project can be decided by the application or the affiliate, or the customer can be given a list to choose from and could also enter their own donation amount. This can be discussed with the Surecan team about what may work best.

## Requirements

1. Access to the Footprints Web Service URL from your Web Server.
2. Code for requesting and receiving SOAP data over HTTP
3. A login and password for a user with permission to connect to the footprints web service and access to at least one footprints project
4. Integration of some client side code into your purchase path pages for allowing customers to select to donate money to a Footprints project
5. Guaranteed delivery of payment notification and cancellation notification to the footprints servers

## Typical Donation Process



As part of the transaction path, the following procedure would typically take place:

1. Customer progresses through earlier steps of the purchase/transaction path
2. Customer requests the page that offers the Footprints donation
3. The page offering the Footprints donation calls the GetCurrentProjects method on the Web Service and displays the list of projects, allowing the customer to select a project and an amount to donate.
4. Customer completes through the purchase/transaction path
5. Once the transaction is complete and being stored in the database, the details regarding this donation (i.e. projectId, amount, currency, customer) are also recorded in the database and flagged as

not being published to Footprints. An attempt should be made immediately to publish this donation to Footprints by calling the Donate method on the Web Service. If successful, the database entry should be flagged as published.

A Watchdog process should also be built that checks the database for any unpublished donations that are older than 15 minutes to call the Donate method on the Footprints API to ensure that these donations are published.

An alternative to this method of guaranteeing delivery of the donation is to use a message queue with guaranteed delivery and build a publishing agent to check this queue and deliver any donations to Footprints or return them to the queue if unsuccessful.

Alternative methods of donating could involve randomly picking a project to donate to, or even the amount of a donation being the rounding up of a transaction amount to a rounded dollar figure.

## Cancelling a donation

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Whenever a customer cancels a transaction, and for which you have recorded a donation as being recorded and published to Footprints, then this cancellation needs to also be published to the Footprints API by calling the CancelDonation method. Similar approaches can be used to guaranteeing delivery of donations, as to guaranteeing delivery of cancellations of donations, whether by flagging these in the database, or using a message queue type system.

## API Interface

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The development interface for the API is located at:

<http://testapi.footprintsnetwork.org/Footprints2.asmx>

All development and staging must take place against this test interface, once a site is ready to go into production the URL is to be changed to:

<http://api.footprintsnetwork.org/Footprints2.asmx>

The WSDL can be located at:

<http://testapi.footprintsnetwork.org/Footprints2.asmx?WSDL>

If you need a login to either of these environments, contact Mary Wang ([mary@worldnomads.com](mailto:mary@worldnomads.com)) to request a username and password to the respective environment that you require.

## API Definition

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### Informational Methods

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#### GetCurrentProjects

**Parameters:**

Name	Data Type	Description
username	string	API account username
password	string	API account password

**Returns:** Array of ProjectInfo

GetCurrentProjects should be called to retrieve a list of available projects for the current API account. The resulting list should be used to present the options to the customer to select which project they wish to donate to.

This method should be called each time the option is to be presented to the customer, to ensure that the latest list of projects is presented. Once a project is fully funded, it will no longer appear on this list, but will appear on the GetCompletedProjects result.

#### GetCompletedProjects

**Parameters:**

Name	Data Type	Description
username	string	API account username
password	string	API account password

**Returns:** Array of ProjectInfo

GetCompletedProjects retrieves a list of previously completed projects for the current API account. This method is typically used if you wish to present the previous projects to users of your site to show the contribution your customers have made to those projects.

The data retrieved from this call can be cached by the calling site as the data does not need to be as current as it is not required for transactions. The duration of caching would typically be for not longer than 24 hours, but no more frequently than 6 hours.

#### GetProjectPartners

**Parameters:**

Name	Data Type	Description
username	string	API account username
password	string	API account password

**Returns:** Array of ProjectPartnerInfo

GetProjectPartners retrieves a list of charities who provide the projects for the current API account. This method is typically used if you wish to present the charities providing the projects to users of your site to show the types of charities they can contribute to.

The data retrieved from this call can be cached by the calling site as the data does not need to be as current as it is not required for transactions. The duration of caching would typically be for not longer than 24 hours, but no more frequently than 6 hours.

## Donation Methods

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### Donate

#### Parameters:

Name	Data Type	Description
username	string	API account username
password	string	API account password
projectId	int	Identifier of the project to donate to – this value is part of the ProjectInfo structure returned by GetCurrentProjects
amount	decimal	Amount to donate
currency	string	The currency code of the donation (currently supported currencies are AUD, NZD, USD, CAD, EUR, GBP, ZAR)
name	string	Customers name
email	string	Customers email address
referencenumber	string	Transaction reference used by third-party to identify the transaction that this donation occurred with. In insurance applications, this is typically a policy number or extension number, however this varies account to applications and only needs to be unique to that third-party.

**Returns:** PaymentInfo

The Donate method is the primary method for making a donation to a Footprints project. Once you have retrieved a list of current projects via GetCurrentProjects, and the customer has selected a project and nominated an amount, you call the Donate method providing these limited details and providing your own referencenumber so you can audit donations or cancel donations at a later date.

### CancelDonation

#### Parameters:

Name	Data Type	Description
username	string	API account username
password	string	API account password
referencenumber	string	Transaction reference used by third-party to identify the transaction that this donation was made with.

**Returns:** boolean (true means cancellation successful, false means donation doesn't exist)

CancelDonation should be called whenever a customer cancels their purchase, order, or transaction that the donation was made with. As donations should always be made with a transaction with the third-party and not as an independent transaction, if the dependent transaction is cancelled then the donation must be cancelled, and the money refunded by the third-party.

## Affiliate Donation Methods

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These methods are use for when a third-party matches a donation of their customer. When matching a donation, the amounts do not need to be the same, only the referencenumber needs to match.

### AffiliateDonate

#### Parameters:

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Name	Data Type	Description
username	string	API account username
password	string	API account password
projectId	int	Identifier of the project to donate to – this value is part of the ProjectInfo structure returned by GetCurrentProjects
amount	decimal	Amount to donate
currency	string	The currency code of the donation (currently supported currencies are AUD, NZD, USD, CAD, EUR, GBP, ZAR)
name	string	Customers name
referencenumber	string	Transaction reference used by third-party to identify the transaction that this donation occurred with. In insurance applications, this is typically a policy number or extension number, however this varies account to applications and only needs to be unique to that third-party.

**Returns:** PaymentInfo

The AffiliateDonate method is the method for making a donation to a Footprints project to match a donation made by a customer. The projectId, customers name, and referencenumber will be the same as the original donation being matched, however the amount and currency do not need to be the same.

## CancelAffiliateDonation

**Parameters:**

Name	Data Type	Description
username	string	API account username
password	string	API account password
referencenumber	string	Transaction reference used by third-party to identify the transaction that this donation was made with.

**Returns:** boolean (true means cancellation successful, false means donation doesn't exist)

CancelAffiliateDonation should be called whenever a customer cancels their purchase, order, or transaction that the affiliate donation was made with.

## Structures

### ProjectInfo

Name	Data Type	Description
ProjectId	int	Unique identifier for this project
ProjectTitle	string	Name of the project
CountryId	int	Footprints identifier for the country
CountryName	string	Name of the country
CountryURL	string	Url to the country page on Footprints
Summary	string	Summary of the project
Body	string	Full description of the project
CurrencyCode	string	Currency code for the currency of the project
TotalCost	decimal	Total amount required to fund this project
CurrentPayments	decimal	Total amount received so far in funding
DonationCount	int	Number of donations made to this project

ProjectStatus	string	OPEN or COMPLETED depending on whether the project is current or fully funded
ProjectURL	string	Url to the project page on Footprints
ProjectImageThumbURL	string	Url to the thumbnail image for this project
ProjectMainImageURL	string	Url to the full image for this project
IssueTitle	string	Name of the issue that this project relates to
IssueSummary	string	Summary of this issue
ProjectPartnerId	int	Footprints identifier for the organisation providing the project
ProjectPartnerName	string	Name of the organisation providing the project
ProjectPartnerWebsite	string	Url of the organisation's website
ProjectPartnerURL	string	Url of the organisation's page on Footprints

### ProjectPartnerInfo

Name	Data Type	Description
ProjectPartnerId	int	Unique identifier for this organisation
ProjectPartnerName	string	Name of the organisation
ProjectPartnerFootprintsUrl	string	Url to the organisation's page on Footprints

### PaymentInfo

Name	Data Type	Description
ResponseCode	string	Outcome of the donation. Refer to the ResponseCodes table below.
ErrorMessage	string	Textual description of error.
Timestamp	datetime	Date and time on Footprints that the donation was received
Project	string	Name of the project the donation was made to
ProjectPartner	string	Name of the organisation the donation was made to

### ResponseCodes

These are the valid response codes you can expect.

INVALID_LOGIN	The API account username or password is invalid
INVALID_AMOUNT	The amount is less than zero
INVALID_PROJECT	The project does not exist
INVALID_CURRENCY	The currency is not supported
INVALID_CURRENCY_CONVERSION	A conversion rate cannot be found for the currency from/to
DB_ERROR	A database error has occurred
SUCCESS	The donation was successful