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|  <h2 style="text-align: center;">FusionPro Links DNS Configuration Guide</h2> | |
| Product | FusionPro® Links |
| Document Date | January 15, 2010 |
| Customer Support | For more information or support, please email support@printable.com , or contact your Client Project Manager directly. For Frequently Asked Questions or Online Help, please use the Help and FAQ links. |

Overview

The FusionPro Links solution allows for the creation of Personalized URLs to support personalized Marketing Campaigns. A unique Personalized URL is created for every customer or prospect included in the marketing campaign to provide both a personalized experience to the customer and allow the Marketer the ability to track individual customer response rates for the campaign.

Although computers on the internet are ultimately identified by numeric IP (Internet Protocol) addresses, users typically prefer to use names rather than numbers to access internet resources. It's simply easier to remember a web address such as www.giantAnvil.com than it is to remember an IP address like 64.154.89.60. On the internet, the Domain Name System (DNS) is used to map these readable web addresses to IP addresses.

Almost any domain name can be used to create Personalized URLs within the FusionPro Links system. Users can employ the use of a sub-domain for a particular campaign (for example, in the domain name "springPromo.GiantAnvil.com", the sub-domain of "springPromo" is part of the parent domain "GiantAnvil.com") or they can dedicate the entire parent domain to a single FusionPro Links campaign (e.g. the domain "GiantAnvilPro.com" is created for use explicitly in a single campaign).

To allow Personalized URLs to function correctly and direct an end user to an active FusionPro Links campaign, the administrator of the domain that is to be used for the campaign must map the domain name to the FusionPro Links system. This mapping to the FusionPro Links servers must be done by a user that has administrative access for the domain - often a user in the IT department of the corporation. It is advised that FusionPro Links customers engage the appropriate personnel in the early stages of the campaign design process to ensure a smooth activation of the campaign.

Once this has occurred and after a requisite period of time where Internet DNS server information is updated to reflect this change, the domain or sub-domain will be ready to use with a FusionPro Links campaign.

PLEASE NOTE: Depending on the which provider the DNS information is managed by, it may take up to 48 hours – or longer - to propagate any DNS changes to the internet. This should certainly be taken into account in the campaign planning stages and be performed as soon as possible to ensure no delay to the launching of a campaign.

Note that in some scenarios, it may be quite difficult to achieve the necessary cooperation of the domain administrator to make DNS change needed for a given domain. This is often the case when a service provider is to create a campaign for a larger enterprise client where IT policy might prohibit such modifications. In these cases, an alternative solution is to register an entirely new domain for Marketing campaigns that the Marketing team or service provider can control as needed.

An Example

Consider the following example. A campaign called “Spring Promotion” is to be launched for the company “Giant Anvil”. Giant Anvil owns the domain name “giantAnvil.com” with their corporate website being at www.giantAnvil.com.

For the Spring Promotion Campaign, the Giant Anvil Marketing department would like to create Personalized URLs for each recipient of a direct mail postcard and subsequent personalized email to follow. For this Personalized URL, the Marketing team would like to use the domain name springPromo.giantAnvil.com.

Giant Anvil Marketing has a choice to append the personalization string of the Personalized URLs for this campaign to either the beginning or the end of this domain name. So they would be able to have Personalized URLs with the personalization at the beginning such as:

[http:// JohnSmith.springPromo.giantAnvil.com](http://JohnSmith.springPromo.giantAnvil.com)
[http:// KirstinThompson.springPromo.giantAnvil.com](http://KirstinThompson.springPromo.giantAnvil.com)
[http:// FrankChung.springPromo.giantAnvil.com](http://FrankChung.springPromo.giantAnvil.com)

Or, they could have Personalized URLs with the personalization in the end such as:

<http://springPromo.giantAnvil.com/JohnSmith>
<http://springPromo.giantAnvil.com/KirstinThompson>
<http://springPromo.giantAnvil.com/FrankChung>

In this example, the Marketing team will utilize Personalized URLs with the personalization at the end of the domain.

Since Giant Anvil Corporation owns the domain to be used in this campaign (giantanvil.com), the Giant Anvil domain administrator (Bob – the Director of IT), modifies the DNS record for giantAnvil.com to tell all requests to springPromo.giantAnvil.com to be routed to the FusionPro Links servers. This will allow all customers who enter their Personalized URLs from their direct mail pieces and follow-up email campaign to be directed to personalized Microsites housed on the FusionPro Links servers.

DNS Setup Instructions

Depending on the type of Personalized URLs that are to be created for a domain, there are different DNS configuration steps. The two types of Personalized URLs that can be created with FusionPro Links are those with the personalization in front of the domain or those with personalization at the end of the domain.

<http://mydomain.com/JohnSmith>
<http://JohnSmith.mydomain.com>

It should be decided early in the campaign planning process which type of Personalized URL is to be used for a campaign so the correct DNS configuration steps can be followed and that DNS information has time to propagate to the wider Internet (**a process that can take up to 48 hours – or longer - in some cases**).

Personalization in FRONT of Domain

If the campaign is to employ the use of Personalized URLs with the Personalization in the front of the domain, a wildcard DNS record must be created in the DNS configuration. This will direct all traffic for a given domain to the FusionPro Links servers to properly serve up the correct campaign, personalized Microsite, and log the visit of the user.

To accomplish this, the DNS administrator can create either a wildcard A record **or** CNAME record for the domain that points to the FusionPro Links servers. It should be noted that while most DNS administration solutions allow for the creation of wildcard A records, some do not allow the creation of wildcard CNAME records (such as GoDaddy).

Wildcard DNS record – A wildcard DNS record is a method that allows DNS traffic that is not explicitly mapped to an A or CNAME record on a domain to be directed to a given location. For example, www.domain.com might be mapped to the location (IP Address or alternate domain name) of the primary web server, and mail.domain.com might be mapped to the email server, but JohnSmith.vip.domain.com isn't mapped to a server.

To direct a request made to JohnSmith.vip.domain.com (and any additional number of visitors with their own URLs) to the appropriate location – which would be the FusionPro Links server - a Wildcard DNS record is created.

Wildcard records are created by using an asterisks character - * - in the DNS configuration system. To learn more about Wildcard DNS records, visit http://en.wikipedia.org/wiki/Wildcard_DNS_record

If a wildcard A record is to be created for a domain, it should be pointed to the IP Address of the FusionPro Links Servers - **64.154.89.60**

Alternately, and if the DNS administration solution allows for it, a wildcard CNAME record can be created for the domain to be used in the campaign. The CNAME record should point to the domain name of the FusionPro Links servers – <http://fplinks.printable.com>

To avoid scenarios where end users may be confused when receiving a Personalized URL, it should be noted that if a campaign is to be created with Personalized URLs that contain the personalization in the front of the URL, the domain name used for that campaign should not start with “www”. If a domain with www at the beginning is used for such a campaign, FusionPro Links will drop the www prefix when the Personalized URLs are created.

So if the domain requested to be used is www.vip.domain.com, Personalized URLs will be generated as JohnSmith.vip.domain.com as opposed to JohnSmith.www.vip.domain.com. While users on the internet are accustomed to www being the prefix for a URL, a www in the middle of the URL is very much non-standard and unexpected. This may lead some users to start typing the URL with the “www” instead of their name which appears at the front (leading to responses that do not correlate to the actual visitors of the Microsite).

With Wildcard A or CNAME records to achieve personalization at the front of the Personalized URL, a number of options are available depending on the needs of the campaign administrator – especially when using an existing domain name for a campaign that may be in use by an enterprise client for other purposes. Please refer to the following chart:

| DNS Record | Description | Examples |
|------------|---|---|
| * | <p>All domain traffic that does not resolve to an established A or CNAME record points to the FusionPro Links servers.</p> <p>This type of wildcard is more often used for domains that are dedicated to a single campaign.</p> <p>It is not suitable for parent domains that are currently in use in higher-traffic scenarios (such as the domain of an established company) or for domains that are to be used for more than one campaign in the FusionPro Links system</p> | <p>http://JohnSmith.domain.com http://LindaFin.domain.com</p> |
| *.vip | <p>All traffic to the VIP sub-domain will be directed to the FusionPro Links servers.</p> <p>This type of wildcard is more appropriate for established parent domains (such as the domain of an established company) as it will not re-direct all anonymous traffic to the parent domain to the FusionPro Links system. Only traffic to “vip.domain.com” will be directed to FusionPro Links.</p> <p>This is also suitable for parent domains that are to be used for multiple campaigns in FusionPro Links as separate sub-domains can</p> | <p>http://JohnSmith.vip.domain.com http://LindaFin.vip.domain.com</p> |

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| | be created for each campaign (*.vip, *.SpringPromo, *.HotDeals, etc). | |
| *.my.site | All traffic to the my.site sub-domain will be directed to the FusionPro Links servers. As with the wildcard type listed above, this type is also suitable for in-use parent domains and parent domains that are to be used for multiple campaigns. | http://JohnSmith.my.site.domain.com http://LindaFin.my.site.domain.com |

Personalization at the END of Domain

Campaigns that are to include personalization at the end of the domain do not, in most customer cases, utilize the wildcard A or CNAME records like the “in FRONT” campaigns do. Instead, a non-wildcard record is created as an A or CNAME record to point to the FusionPro Links system.

If an A record is to be created for a domain, it should be pointed to the IP Address of the FusionPro Links Servers - **64.154.89.60**

Alternately, a CNAME record can be created that should point to the domain name of the FusionPro Links servers – <http://fplinks.printable.com>

Please refer to the following chart for examples:

| DNS Record | Description | Examples |
|------------|--|--|
| vip | All traffic to the vip sub-domain will be redirected to the FusionPro Links system. This type of record is appropriate for any type of campaign – both those currently in use (an enterprise customer’s primary domain, for example) or for re-use of the parent domain for multiple campaigns. | http://vip.domain.com/JohnSmith http://vip.domain.com/LindaFin |
| my.site | All traffic to the my.site sub-domain will be directed to the FusionPro Links servers. This type of record is also appropriate for any type of campaign – both those currently in use (an enterprise customer’s primary domain, for example) or for re-use of the parent domain for multiple campaigns. | http://my.site.domain.com/JohnSmith http://my.site.domain.com/LindaFin |
| * | This type of record is specifically an A versus CNAME record and can be | http://domain.com/JohnSmith http://domain.com/LindaFin |

| | | |
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| | <p>used to direct all traffic to the parent domain to the FusionPro Links system.</p> <p>This type of wildcard is more often used for domains that are dedicated to a single campaign and are less common than the previous sub-domain examples.</p> <p>It is not suitable for parent domains that are currently in use in higher-traffic scenarios (such as the domain of an established company) or for domains that are to be used for more than one campaign in the FusionPro Links system</p> | |
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For questions about setting up DNS records for FusionPro Links, please email

Support@printable.com

DNS Setup Example Screenshots

Sample screenshot of adding a CNAME record to a domain using GoDaddy.com. This is used for Personalized URLs with the personalization at the end of the URL. In this example, the "springpromo" sub-domain for the domain "giantAnvil.com" is set to point to fplinks.printable.com

The screenshot shows the GoDaddy Domain Manager interface for 'giantanvil.com'. At the top, there are navigation links for 'Domains' and 'Help', and user information including 'Welcome: Mark' and 'Log Out'. Below the domain name, there are buttons for 'Import / Export', 'Check Zone Records', 'Advanced Mode', and 'Return to List'. The main content area is titled 'CNAME (Alias)' and contains instructions on how to create a new CNAME record. A red circle highlights the form fields: 'Enter an Alias Name:' with the value 'springpromo', 'Points To Host Name:' with the value 'fplinks.printable.com', and a 'TTL' dropdown set to '1 Hour'. Below this form is a table of existing records. A red circle highlights the 'springpromo' record in the 'CNAMES (Aliases)' section, which points to 'fplinks.printable.com' with a TTL of '1 Hour'. The table also shows records for '@' and '*' pointing to IP addresses, and 'www' pointing to 'www.appleinsider.com'. At the bottom, there is a copyright notice: 'Copyright © 2004 - 2009. All Rights Reserved.'

This screenshot shows the pointing of all parent domain traffic to FusionPro Links by editing an A record. In this example, the domain "giantAnvil.com" is pointed to the FusionPro Links server IP address of 64.154.89.60

The screenshot shows the GoDaddy Domain Manager interface for the domain "giantanvil.com". The main content area is titled "A (Host) Record" and contains a form for creating a new record. The form fields are: Host Name: *, Points To Ip Address: 64.154.89.60, and TTL: 1 Hour. Below the form is a table of existing records. The table has columns for Host, Points To, TTL, and Actions. The record for Host "*" is highlighted with a red circle.

| Host | Points To | TTL | Actions |
|------|----------------|--------|-----------------|
| @ | 207.58.150.187 | 1 Hour | [Edit] [Delete] |
| * | 64.154.89.60 | 1 Hour | [Edit] [Delete] |

| Host | Points To | TTL | Actions |
|-------------|----------------------|--------|-----------------|
| www | www.appleinsider.com | 1 Hour | [Edit] [Delete] |
| puris | fpinks.printable.com | 1 Hour | [Edit] [Delete] |
| springpromo | fpinks.printable.com | 1 Hour | [Edit] [Delete] |

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This screenshot shows the pointing of all traffic to the “vip” sub-domain to FusionPro Links by editing an A record. This type of record is typically used in campaigns where personalization is in the front of the Personalized URL. In this example, a wildcard A record of “*.vip” of the the domain “giantAnvil.com” is pointed to the FusionPro Links server IP address of 64.154.89.60

The screenshot shows the GoDaddy Domain Manager interface for the domain giantanvil.com. The 'A (Host) Record' configuration window is open, showing the following details:

- Host Name: *.vip
- Points To Ip Address: 64.154.89.60
- TTL: 1 Hour

Below the configuration window, a table lists existing DNS records:

| Host | Points To | TTL | Actions |
|-------|----------------|--------|-----------------|
| @ | 207.58.150.187 | 1 Hour | [Edit] [Delete] |
| *.vip | 64.154.89.60 | 1 Hour | [Edit] [Delete] |

Below this table, the 'CNAMEs (Aliases)' section is visible with the following records:

| Host | Points To | TTL | Actions |
|-------------|-----------------------|--------|-----------------|
| www | www.appleinsider.com | 1 Hour | [Edit] [Delete] |
| puris | fplinks.printable.com | 1 Hour | [Edit] [Delete] |
| springpromo | fplinks.printable.com | 1 Hour | [Edit] [Delete] |

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