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Some parts may be outdated.**

You can find the latest information here:

<https://www.frogans.org/en/main.html>



Technical discussion about Frogans technology with ICANN

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Agenda

- Frogans technology enables an innovative way of communicating on the Internet
- Why a new way of communicating on the Internet?
- The key concepts of Frogans technology
- Frogans address lookup data
- The Frogans layer requires DNS to function
- But the DNS cannot technically be used to resolve individual Frogans addresses
- Use of the .frogans TLD



Frogans technology enables an innovative way of communicating on the Internet



Watch Frogans sites
in action: frogans.org

June 27, 2016



Why a new way of communicating on the Internet?

- Need for simplicity

Invent a new way of visualizing and projecting content on the Internet, simply and universally.

- Need for pace

Increasing use of smartphone limits the access to standard Web sites, too large and complex to be loaded on uncertain mobile networks. Mobiles apps have been created to fix this but there are only 1.6 million versus 170 million Web sites.

- Need for cost effectiveness

Multiplicity of devices (PC, phones, TV, tablets,...) requires multiple versions of Web sites or specific apps. This means additional costs and maintenance.



The key concepts of Frogans technology (1/2)

- Frogans technology

A secure technology used to implement a **new software layer on the Internet**, alongside other existing software layers such as E-mail or the Web. The Frogans technology makes it possible to publish Frogans sites.

- Frogans site

A set of Frogans pages, called "slides", hyperlinked to each other, available online on the Internet or in an intranet, at a Frogans address. A Frogans site can be published by any individual or organization, from anywhere in the world, in any language.

- Frogans Player

Free-of-charge software used to browse Frogans sites. Frogans Player is to be made available on a wide range of fixed and mobile devices. It is developed and distributed by the OP3FT.



The key concepts of Frogans technology (2/2)

- Frogans Slide Description Language (FSDL)

Technical specification used to create and publish Frogans sites on the Internet. FSDL documents are XML/Unicode based. They are exchanged between the Frogans Player software and the server where the Frogans site is hosted/generated.

- Frogans Address

A string of characters serving as the identifier of a Frogans site. The generic pattern of Frogans addresses is "network-name*site-name". Frogans addresses may contain international characters and may be written from left to right or from right to left. The pattern is defined by IFAP.

- Frogans Network System Language (FNSL)

Technical specification used to resolve Frogans addresses on the Internet. FNSL documents are XML/Unicode based. They are exchanged between the Frogans Player software and the Frogans address lookup servers called FNS servers.



Frogans address lookup data

```
<frogans-address-lookup>
  <preferred-form-frogans-address>frogans*HelloWorld</preferred-form-frogans-address>
  <intended-audience>
    <age category='suitable-for-all' />
    <location countries='all' />
  </intended-audience>
  <indexing authorization='allow' />
  <frogans-site online='yes'>
    <frogans-site-root-directory>
      <ucsr-path network='IP_DNS_TCP_HTTP'>
        <location>public</location>
        <domain-name>p7526.test.lab.op3ft.org</domain-name>
        <port>80</port>
        <directory>/fp4d/helloworld-live</directory>
      </ucsr-path>
    </frogans-site-root-directory>
    <fsdl-documents>
      <version>3.0</version>
      <encoding>UTF-8</encoding>
    </fsdl-documents>
    <home-slide-file>/home.php</home-slide-file>
  </frogans-site>
</frogans-address-lookup>
```

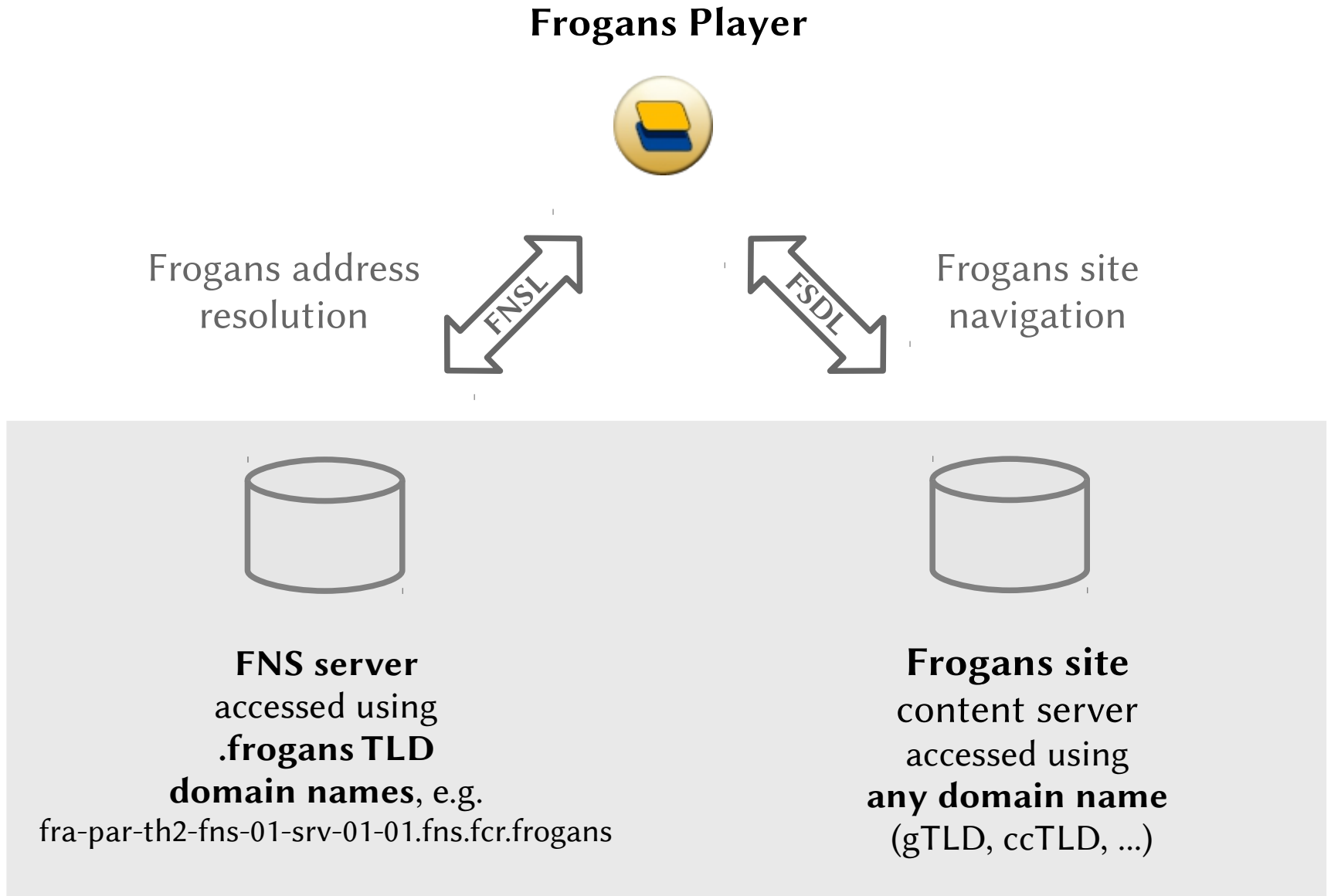
Frogans address
corresponding to
a Frogans site

Hosting location
of the Frogans site
on the Internet

Is always based
on a domain name
(gTLD, ccTLD...)

FNSL document (extract) retrieved from FNS server:
fra-par-th2-fns-01-srv-01-01.fns.fcr.frogans

The Frogans layer requires DNS to function





But the DNS cannot technically be used to resolve individual Frogans addresses

- The size of an FNS record (FNSL document) corresponding to a Frogans address is between 1,900 and 4,800 bytes:
 - Lookup data: from 1,500 to 4,000 bytes
 - Signature data: from 400 to 800 bytes

Example corresponding to frogans*HelloWorld

```
$ wget fra-par-th2-fns-01-srv-01-01.fns.test.fcr.frogans/b2/96/7a/  
002u00360033002v002p00320037.lookup.  
002w002t003000300033003b003300360030002s.fns1
```

- This FNS record size would currently break the DNS (see past concerns with the .tel TLD)



Use of the .frogans TLD (1/3)

- .frogans TLD domain names are not used to name Frogans sites.
- Unlike the other new TLDs, the purpose of the .frogans TLD is not to provide new creative domain names for Web sites.
- .frogans TLD domain names are used to **address the computers that are dedicated to the functioning of the Frogans layer on the Internet**, in order to ensure the security, stability and reliability of this layer for users.
- The use of the .frogans TLD is inspired by the use of the .net TLD, as specified by Jon Postel in RFC 1591 (1994):

NET - This domain is intended to hold only the computers of network providers, that is the NIC and NOC computers, the administrative computers, and the network node computers. The customers of the network provider would have domain names of their own (not in the NET TLD).



Use of the .frogans TLD (2/3)

- The key benefit in using a TLD instead of a second-level domain (e.g. frogans.net) is that, unlike a second-level domain:
 - there is no risk of unauthorized delegation change which would expose all users of the Frogans layer (publishers, hosting providers, end users, etc.) to security issues and threats.
- .frogans TLD is operated under Specification 13 (.Brand TLD Provisions). All domain names (2nd level and higher) are held by the OP3FT.
- The use of the .frogans TLD adheres to ICANN's principles for keeping the Internet secure, stable and interoperable, while encouraging more innovation on the Internet.



Use of the .frogans TLD (3/3)

- get.frogans – Frogans Player download
- fpu.frogans – Frogans Player update
- fcr.frogans – Frogans Core Registry management
 - whois.fcr.frogans – Frogans address whois database
 - public-data.fcr.frogans – Frogans address public data
 - api.fcr.frogans – FCR API for stakeholders
 - public.api.fcr.frogans
 - accadmin.api.fcr.frogans
 - udrpfpro.api.fcr.frogans
 - ...
 - fns.fcr.frogans – FNS Servers
 - fra-par-th2-fns-01-srv-01-01.fns.fcr.frogans
 - deu-frk-l3a-fns-01-srv-01-01.fns.fcr.frogans
 - usa-nyc-l3b-fns-01-srv-01-01.fns.fcr.frogans
 - usa-la-l3b-fns-01-srv-01-01.fns.fcr.frogans
 - ...
- For more information: <https://nic.frogans/>