

# Internationalized E-mail Technology

Internet usage is expanding globally into populations that are non-English speaking, estimated to be 83% of the world's population. Unfortunately, adoption of IDN URLs is inhibited by the lack of support for international e-mail addresses. Afilias has created a new IDN E-mail solution to address this problem and facilitate IDN adoption.

#### What is Afilias IDN F-mail?

Afilias IDN E-mail is a software package that supports "E-mail Address Internationalization" (EAI), a standard under development by the Internet Engineering Task Force (IETF). This standard removes the restriction of English-only alphabets in e-mail addresses. Afilias' IDN e-mail application allows people to use almost any language in their e-mail address. The Afilias implementation follows RFC 4952 and additional draft RFCs that are in the process of being standardized. These changes allow both the username and the domain name of an e-mail address to be in any language/script represented in the Unicode standard.

### What does the Afilias IDN E-mail package provide?

Afilias IDN E-mail provides all the necessary components for a complete, end-to-end e-mail system.

- A Web based e-mail client for easy access to e-mail.
- E-mail client software that can be used on Windows and Linux.
- Mail server that manages all incoming and outgoing mails.
- A Web based administration console for easy set up of user e-mail accounts on multiple domains.
- Key components of the package are based on open source software used in many production e-mail systems.



Now available for Beta or Full Licensing!

The final link that enables all users of the Internet to have their e-mail identity in their own language.



#### **APTLD October 2010**

The first full IDN e-mail demonstration in conjunction with JO Registry.

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## **NEW!** IDN E-Mail on your Mobile Phone

Sign up to beta test Afilias' new Mobile IDN E-mail App which features:

- Capability to send and receive fully internationalized e-mail.
- Easy integration with your phone's native address book and contact list.
- The same IDN e-mail account access where ever you go!

Beta testing is currently available on a number of mobile platforms.





# IDN E-mail Frequently Asked Questions

#### New Standard, Old Standard. Are they compatible?

The old standard will become a subset of the new standard. The new standard has no complications when receiving ASCII-only e-mail. The new standard will notify the sender if recipients are using an older standard and the sender can change its mail to ASCII-only format with ease.

#### Who else is supporting this standard?

There are a number of organizations from many different countries who are participating in the IETF working group for this new e-mail standard. Some of them are also working on testing new e-mail systems, but not all of them will be providing trial software.

#### When will this new e-mail protocol be used by existing e-mail providers?

The technical details for the new protocol are essentially complete and the core documents defining all the details of the protocol are expected to be issued as RFCs by the IETF. This work is an IETF "Standards Track" specification so it will be incorporated into existing email software when the final specifications are published. The target date for the protocol to be officially released as an Internet standard is in 2010/2011.

#### What e-mail software can I use with IDN E-mail?

E-mail software must be modified to use the new protocol. As part of the package, Afilias provides a modified version of Mozilla Thunderbird that can be used on Windows and Linux.

#### What are the hardware requirements to use Afilias IDN E-mail?

The minimum requirements to deploy the IDN E-mail software is a single Linux server. To date, the package has been verified on Red Hat Enterprise Linux ES, release 4 and 5. The server hardware specifications (processor speed, storage, etc.) depend on the expected load of e-mail.

#### Does it work on my mobile phone?

The IDN E-mail Web environment works on any mobile device and custom Apps are in development for Nokia, Symbian, Android, and iPhone.

#### How many users can be supported?

The number of users depends on the usage profile (average number of e-mails/hour, size of attachments, etc.) and the type of hardware being used. Future versions of the software will support a distributed architecture, where the e-mail components may be run on multiple redundant servers with load balancing. This will provide an ability to scale up the e-mail system to meet performance requirements as load increases.

#### What technical expertise is needed to set up and support this package?

You should have sufficient technical expertise to manage a Linux server running Apache Web server with PHP and an Internet network connection. The IDN E-mail management software provides high level management of e-mail accounts and DNS, but the system administrator should be familiar with the underlying servers, in particular, BIND and Sendmail.

#### What support is provided by Afilias?

Afilias provides the software ready to install. Telephone and e-mail support are available to help with installation and post-installation questions or problems.

#### What languages are supported?

#### For E-mail Address:

The underlying protocol extensions support any language that has a character set defined in Unicode. This currently includes every major language in the world. Generally, any language that can be configured on a commercial computer can be used in IDN E-mail.

#### For Domain Name:

There are limitations in regard to registering a domain in a particular language. This depends on the policies from Internet Corporation for Assigned Names and Numbers (ICANN), registries and registrars. If a TLD has enabled an IDN equivalent, Afilias IDN email can support a fully internationalized address.

#### For Afilias IDN E-mail:

The Afilias software has no restrictions in terms of the domains or e-mail account names that may be defined; generally any language script that has been configured on the computer can be used. The user interfaces (commands, names on menus, input forms, etc.) in most of the software components are predominantly English but the Webmail user interface has an option to switch the interface into more than 40 languages.

