

Bridging the Digital Language Divide: Is Your Email Ready for the Global Market?

UA102
Don Hollander
Secretary General
Universal Acceptance Steering Group

Email connects the globe with a click. And it is critical for more than just sending messages; we use email addresses to log in to social networks, identify ourselves for government services, and as the spare key for our online identity. But it's not as universal as you might imagine.

Until recently, email only used non-accented Latin characters (A – Z, 0-9) for addresses, even for languages such as Russian, Hindi, Thai or Chinese. Only a minority of the world's population use a Latin alphabet with no accents in their daily lives, and the next billion Internet users are even less likely to do so. To make email for a global audience, people need to be able to write their email address in their native script.

The good news is that's now possible. Email Address Internationalization (EAI) allows email addresses to use all kinds of scripts: günter@büncher.berlin or ไทย@อรุณวัฒนามงคล.ไทย are now possible email addresses. However, email software and services need to make specific updates to support them.

Specifically, they must be able to support IDN (internationalised Domain Names) in the domain name, they must be able to support non-ascii characters in the mailbox name, and they must advertise this fact to other email software by announcing SMTPUTF8.

There is a growing awareness of the issue and concrete progress. Examples include:

- [Coremail](#), [XgenPlus](#), [Throughwave](#) and others can host EAI addresses.
- Latest versions of [PostFix](#) and [Exim](#) (widely used Mail Transfer Agents) are EAI Ready.
- Android Email Client (default), BharatSync Communicator (Android), Apple Mail (IOS), Microsoft Outlook 2016 for Windows and others are also EAI Ready.
- Gmail, and Office365 and others can send to and receive from EAI addresses.
- [Mailman](#), a popular Open Source mailing list manager, is also EAI Ready.

But more needs to be done. Popular global and regional service providers are, or will be, working on providing full support for EAI. In India DATAMAIL offer free EAI mailboxes in 8 Indian and 2 International languages, and in Russia почта.р.с offers free Cyrillic mailboxes.

The Universal Acceptance Steering Group (www.uasg.tech) has resources to help companies and organisations in this process, including the "[Quick Guide to Email Address Internationalization \(EAI\)](#)" - practical advice for email software and service providers. There is also a full catalogue of relevant technical documents such as the "[EAI including Overview and Framework for Internationalized Email](#)," [SMTP Extension for Internationalized Email](#) and [IMAP Support for UTF-8](#), on the ietf.org website.

1. If your application uses email addresses, ensure it supports UTF-8 characters in the domain name and the mailbox name.
2. Check if your own mail system is EAI ready. If you're not sure, ask your provider.
3. Test your systems. UASG offers a [set of live domains and addresses for testing](#),

With half the world expected to use email in 2020, the time to get EAI ready is now!

=====
About the author: Don Hollander is a New Zealand based former CIO for very large domestic and international corporations. He has been involved in the New Zealand IT industry for many years and served as the Chair of TUANZ in the 1990's and Chair of the 2020 Trust during the first decade of this century.

跨越數碼語言的鴻溝： 你的電郵地址能否接通全球互聯網市場？

UA102

Don Hollander, UASG 工作組總秘書長

時至今日，上網跟呼吸一樣容易，大眾收發電郵只須輕輕一按，訊息就能接通世界各地。但除了收發訊息，我們更要以電郵地址註冊登入各大社交媒體，及作為登入公共服務的身份辨証，故電郵地址可說是一條開放個人網絡身分的後備鑰匙。然而，表面看來已全球普及的電郵地址，實際上並不如大家想像中的「大同」無界限。

事實上，電郵地址一直沿用**非重音 ASCII 字元(A-Z, 0-9)**（即世上最通行的文字字母系統）設定，直至近年（補充：2010 年）才開始接受**非 ASCII 字元**（含有重音的字元）組成作登記使用，如俄文、印度文、泰文及中文等亦然。雖知在全球人口中，在日常生活中使用**非重音 ASCII 字元**者只佔少數，這情況在十億計的新網民中將會更甚。但為公平顧及全球電郵使用者的需要，大眾應能使用屬於自己本土的語言來設立電郵地址。

好消息是，問題已有解決方案了。由網際網路工程任務小組 (IETF) 發佈的**國際化電子郵件 (EAI, Email Address Internationalization)** 服務包括中文及其他外語字符的電郵地址，如 günter@büncher.berlin 或 ไทย@อภินิหารมงคล.ไทย 等。（註：有關中文詳情可參考台灣的**中文化電子郵件信箱體驗活動**）。然而，這項服務仍需靠電郵軟件及服務供應商提供更新支援，方能全面普及。特別是，在電郵域名部分，他們需支援國際域名 (IDN)，另需兼容**非 ASCII 字元/非拉丁字元**組成的電郵名稱，並透過發佈 **SMTPUTF8** 將這資訊傳送給其他電郵軟件伺服器。

有關以上議題的具體進展各界正持續關注，概括如下：

- **Coremail, XgenPlus, Throughwave** 等已能使用國際化電子郵件 (EAI) 地址；
- **PostFix** 及 **Exim** (即普遍應用的郵件傳輸代理 Mail Transfer Agents) 的最新版本已可兼容 EAI
- **Android** 電子郵件客戶端 (設定版), **BharatSync Communicator (Android)**, 蘋果電郵 **Apple Mail (IOS)**, **Windows** 的 **Microsoft Outlook 2016** 和其他程式已兼容 EAI;
- **Gmail**、**Office365** 等用戶已能接收 EAI 地址的電郵
- 知名開源郵件列表管理軟件 (**Open Source mailing list manager**) **Mailman** 已可兼容 EAI 。

但未來要做的事還有很多。全球及各地區知名服務供應商現正或將為國際化電子郵件 (EAI) 提供全面支援，如印度的 **DATAMAIL** 會提供/開放免費 EAI 電子郵箱予 8 種印度語言及 2 種國際語言，而俄羅斯的 **почта.рус** 正為俄語 (Cyrillic) 提供/開放免費電子郵箱等。

UASG 工作小組 (www.uasg.tech) 為各機構準備一系列資源應付上述更新流程，如 **EAI 快速入門 Quick Guide to Email Address Internationalization (EAI)**，為電郵軟件及服務供應商提供實用建議。網

站將提供最俱全的技術文件，如「國際化電子郵件總覽及國際化電子郵件框架」 ([EAI including Overview and Framework for Internationalized Email](#))、「國際化電子郵件的 SMTP 擴展」 ([SMTP Extension for Internationalized Email](#)) 及「IMAP 對 UTF-8 字元的支援」 ([IMAP Support for UTF-8](#)) 等，歡迎大家登入網站 (<http://ietf.org/>) 了解更多。

1. 如你執行的應用程式需使用電郵地址，請確保它的「域名及電郵名稱」選項能支援 UTF-8 字符。
2. 請檢查你的電郵系統是否已兼容國際化電子郵件（EAI）。如有疑問，請查詢你的系統/服務供應商。
3. 歡迎登入 UASG 提供的「即時域名及電郵地址檢測組合」為你的系統進行測試。

專家預計，2020 年全球將有半數人口使用電郵，故大家是時候裝備好你的國際化電子郵件（EAI）了。

=====

關於撰稿人：以新西蘭為基地的 Don Hollander，過去曾在當地及不少國際機構擔任首席信息官 (CIO) 等要職。他在當地從事資訊科技業多年，於 90 年代擔任 TUANZ 的主席，期後在 2000-2012 年間擔任 2020Trust 的主席。