

CDN Resolution and IDN EMAIL Address

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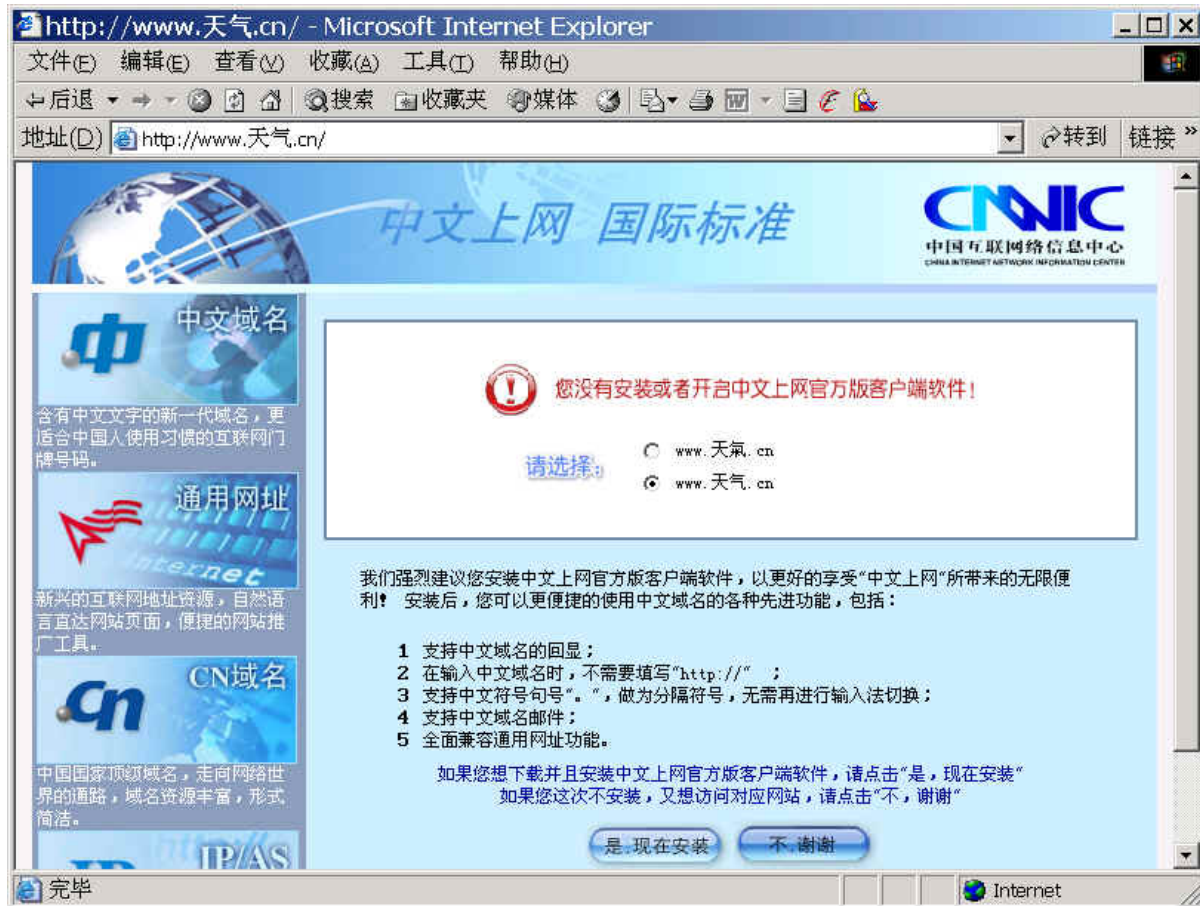
Resolution of IDNs

- IDN Proxy (Without Client-side software)
- IDN Client-side software

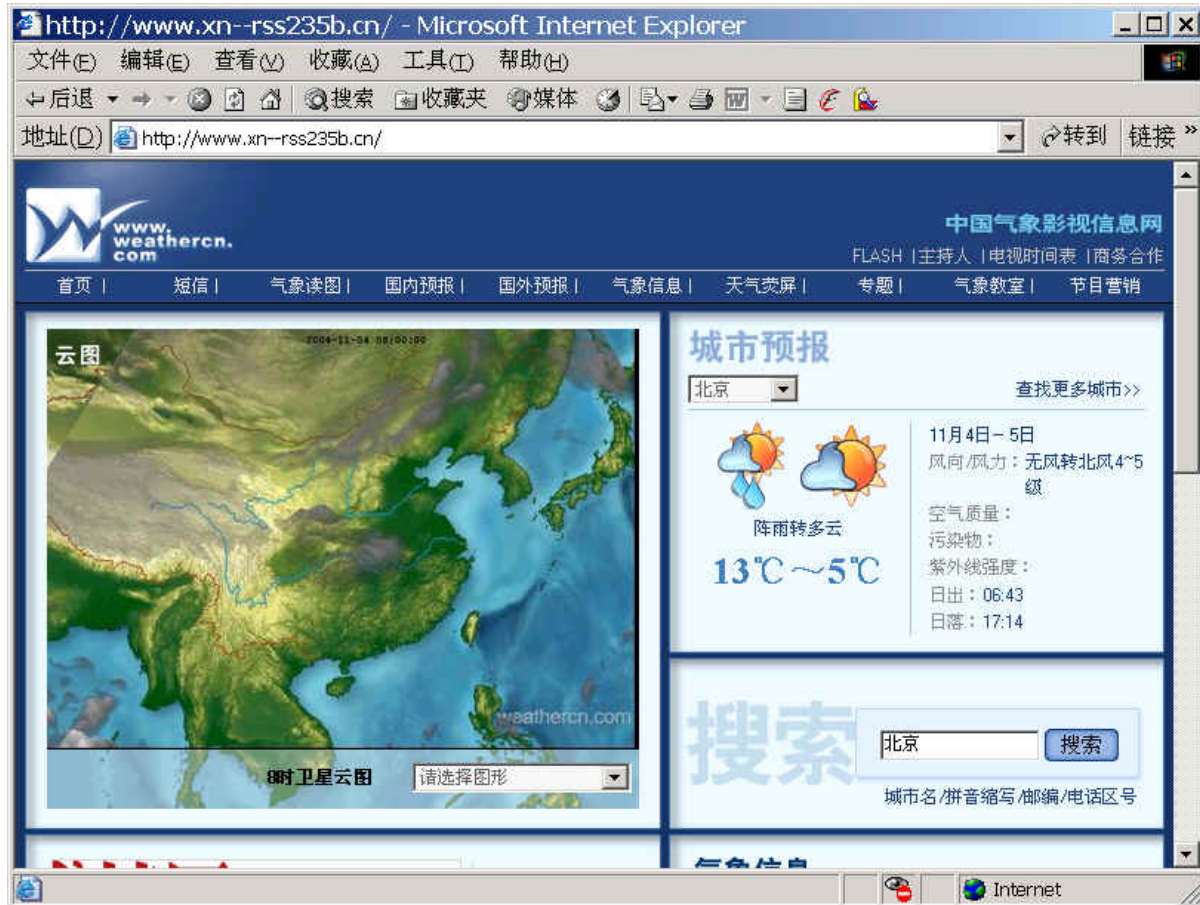
IDN Proxy

- IE on Windows Chinese version platform
 - direct access to IDN.cn in formats of:
 - <http://天气.cn>
 - www.天气.cn

IDN Proxy example (1)



IDN Proxy example (2)



IDN Proxy (2)

- IE on Windows English version platform
 - Win98
 - direct access to IDN.cn in formats of:
 - <http://天气.cn>
 - www.天气.cn
 - WinXP
 - not applicable

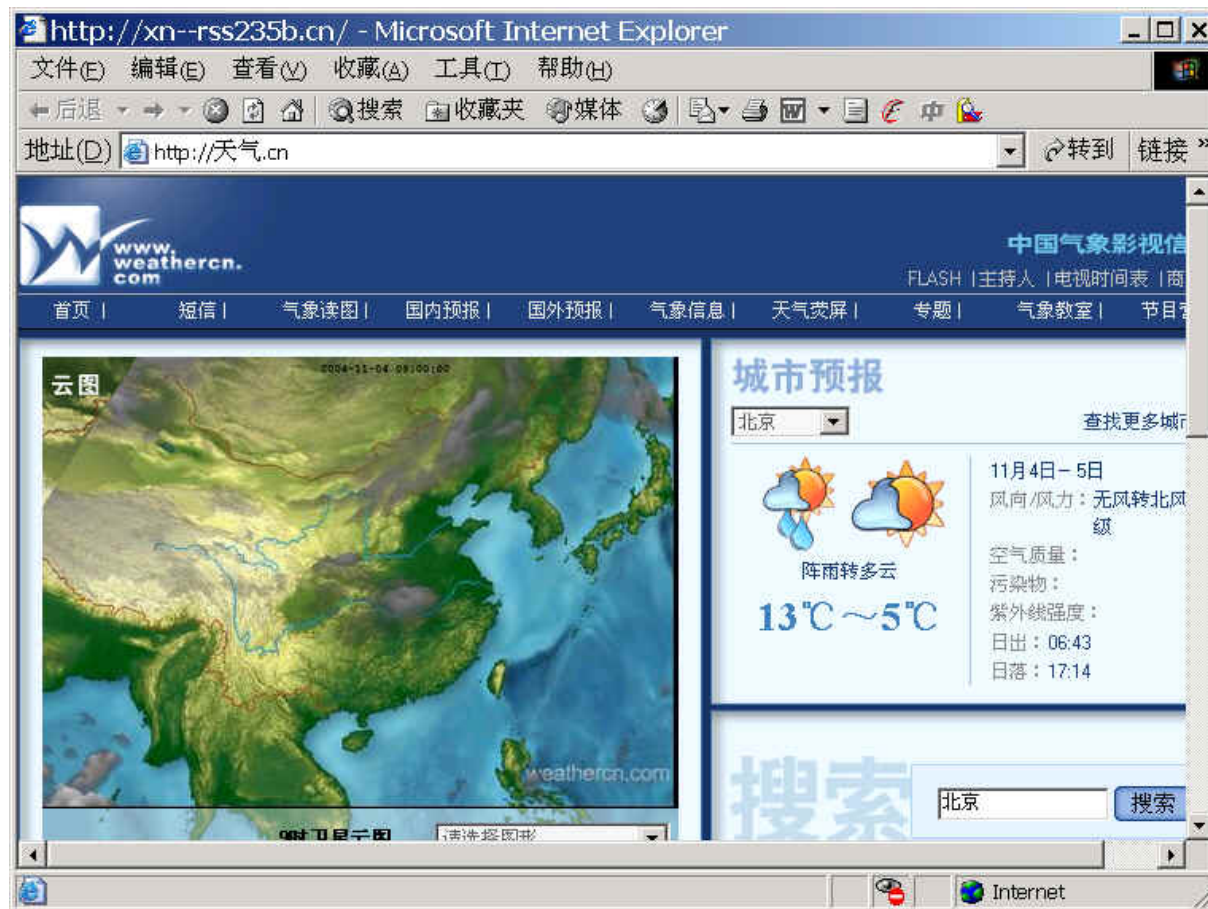
CNNIC provide IDN client

- It is launched in 2000. Compatible with IETF standards RFC3490/3491/3492 since Mar., 2003
- Converting from Chinese characters to punycode
- Support the display of CDN in IE address bar
for example: <http://天气.cn> will not be converted to <http://xn--rss235b.cn/> in IE address bar
- Support the direct input of CDN
for example: direct input 天气.cn instead of <http://天气.cn> or www.天气.cn, which means that you don't need input 'http://' or [www](http://www.天气.cn) before CDN in IE address bar for your convenience
- Support the CDN email address, ping, telnet etc.

Access to IDN.cn by client

- Install IDN client
- Access IDN.cn directly
 - Example
 - 天气.cn

IDN-client example



Problems with IDN Email address

- The normal email address is in the format of [(LHS) left hand side] @ [(RHS) right hand side] . The IDN email address is in the format of [Chinese Characters]@[IDN]. The RHS part of the IDN email address has been solved with IDN which has a international standard; but the LHS part of IDN email address has still not a standard of how to solve it.
- Current mail protocols and client software don't support IDN email address, Different company has different solutions.
- Some existing solutions related to IDN email may disturb the future uses of IDN email.

Proposal to IDN email address

1. New generation of email protocols, implementation and application of which in practice are very difficult
2. Do some changes to MTA (Mail Transfer Agent) in existing email protocols, which requires negotiating layer of protocol to recognize the IDN email address
3. Do some changes to MUA (Mail User Agent) in existing email protocols, which needs upgrading existing email client software and does not harm existing email system

CNNIC's Current Solution

- CNNIC has already supported the email address based on CDN with the form of [Chinese Characters@Chinese Charaters].[cn] such as 毛伟@互联网中心.cn;
- For web based Chinese email address, CNNIC has provided it to public test

<http://互联网中心.cn> or <http://oxygen.cnnic.cn>

- To support Chinese email address in MS Outlook/Outlook Express, the user must download CNNIC plug-in
- CNNIC's solution is based on proposal 3 and do some changes to client software based on MUA

Issues related to IDN email address

- Currently, there are no standards for IDN email address issues (internationalization of email address, IMA)
- Email is most popular application, so IMA is a critical task ahead of us that needs to be solved soon

Thank YOU!

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