



# Display and usage of Internationalized Registration Data

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# The Problem Space

- Internet applications must accommodate a global audience using characters in local languages and scripts
- Whois is an Internet application, therefore
- Whois must accommodate a global audience
- Issue is distinct from IDN TLDs
  - Registration data are different from internationalized domain names

# More than IDN

- IDN standards and guidelines define how domain names will be composed and displayed
  - Whois application and web developers can apply these for submission and display of domain names
- No standards or guidelines define how domain registration data are composed and displayed
  - Sponsoring registrar, contact information, DNS configuration data, ...

# Whois treatment of internationalized registration data

- Recognizable display of Registration Data is application dependent
- Display may be affected by character sets available to Whois clients and browsers
- Registrars and 3rd party Whois service providers may choose encodings that best represent the languages and scripts of the domain registration data

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Drawer Previous Next Page Back/Forward Zoom In Zoom Out Tool Mode

### Sample WHOIS Port 43 queries and responses (courtesy of JPRS)

#### Example 1: IDN input, Japanese output

```
% WHOIS -h WHOIS.jp rs.jp 日本レジストリサービス.jp
[Querying WHOIS.jp rs.jp]
[WHOIS.jp rs.jp]
[JPRS database provides information on network administration.]
[Its use is restricted to network administration purposes. ]
[For further information, use 'WHOIS -h WHOIS.jp rs.jp help'. ]
[To suppress Japanese output, add '/e' at the end of command, ]
[e.g. 'WHOIS -h WHOIS.jp rs.jp xxx/e'. ]

Domain Information: [ドメイン情報]
[ドメイン名]                日本レジストリサービス.JP
[Domain Name]                XN--VCKFDB7E3C7HMA3M9657C16C.JP

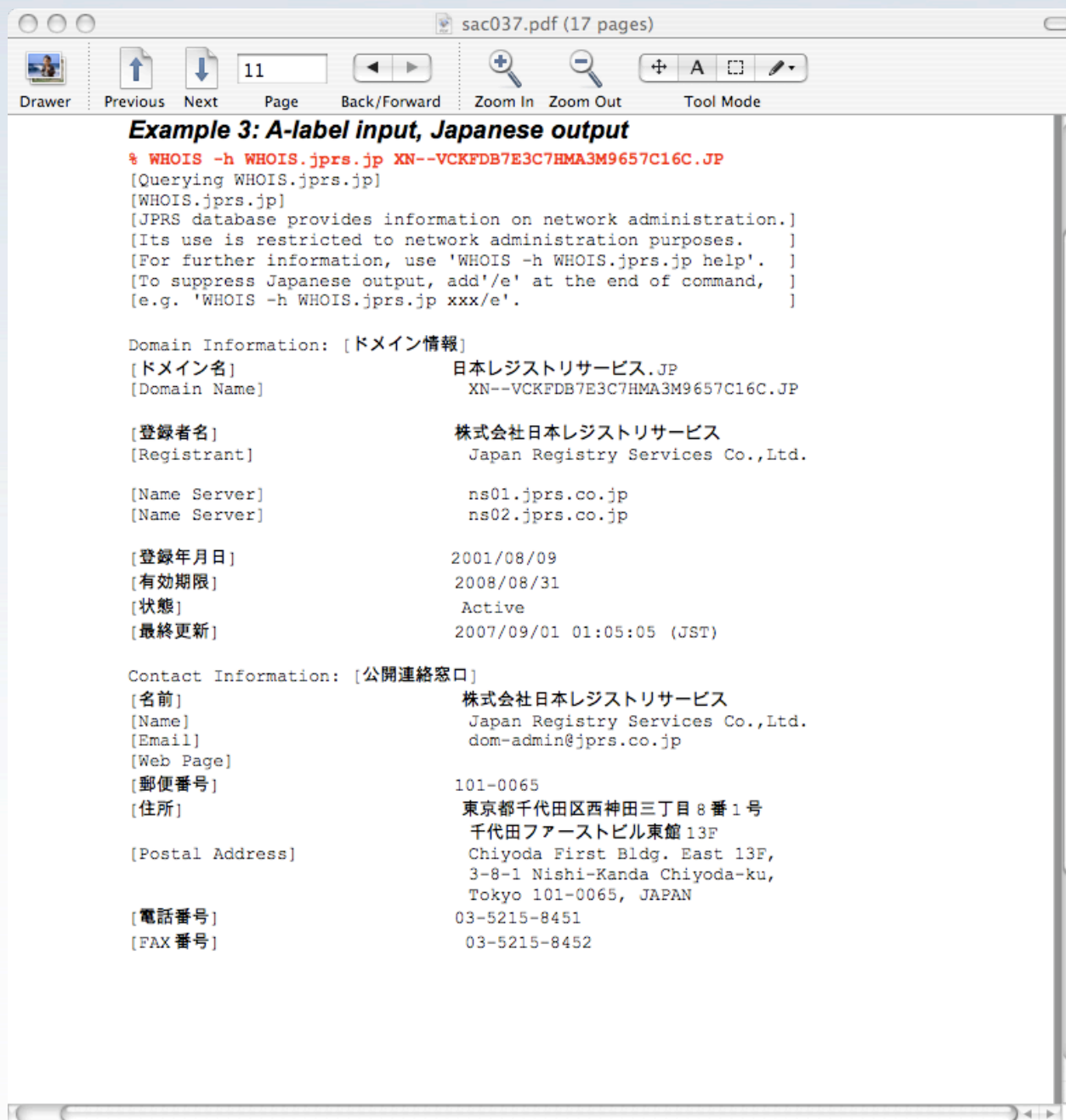
[登録者名]                  株式会社日本レジストリサービス
[Registrant]                 Japan Registry Services Co.,Ltd.

[Name Server]                ns01.jp rs.co.jp
[Name Server]                ns02.jp rs.co.jp

[登録年月日]                2001/08/09
[有効期限]                  2008/08/31
[状態]                       Active
[最終更新]                  2007/09/01 01:05:05 (JST)

Contact Information: [公開連絡窓口]
[名前]                      株式会社日本レジストリサービス
[Name]                       Japan Registry Services Co.,Ltd.
[Email]                       dom-admin@jp rs.co.jp
[Web Page]
[郵便番号]                  101-0065
[住所]                       東京都千代田区西神田三丁目 8 番 1 号
                               千代田ファーストビル東館 13F
[Postal Address]              Chiyoda First Bldg. East 13F,
                               3-8-1 Nishi-Kanda Chiyoda-ku,
                               Tokyo 101-0065, JAPAN

[電話番号]                  03-5215-8451
[FAX 番号]                   03-5215-8452
```



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Drawer Previous Next Page Back/Forward Zoom In Zoom Out Tool Mode

Example 3: A-label input, Japanese output
% WHOIS -h WHOIS.jp XN--VCKFDB7E3C7HMA3M9657C16C.JP
[Querying WHOIS.jp]
[WHOIS.jp]
[JPRS database provides information on network administration.]
[Its use is restricted to network administration purposes. ]
[For further information, use 'WHOIS -h WHOIS.jp help'. ]
[To suppress Japanese output, add '/e' at the end of command, ]
[e.g. 'WHOIS -h WHOIS.jp xxx/e'. ]

Domain Information: [ドメイン情報]
[ドメイン名]                日本レジストリサービス.JP
[Domain Name]                XN--VCKFDB7E3C7HMA3M9657C16C.JP

[登録者名]                  株式会社日本レジストリサービス
[Registrant]                 Japan Registry Services Co.,Ltd.

[Name Server]                ns01.jpns.co.jp
[Name Server]                ns02.jpns.co.jp

[登録年月日]                2001/08/09
[有効期限]                  2008/08/31
[状態]                       Active
[最終更新]                  2007/09/01 01:05:05 (JST)

Contact Information: [公開連絡窓口]
[名前]                      株式会社日本レジストリサービス
[Name]                       Japan Registry Services Co.,Ltd.
[Email]                       dom-admin@jpns.co.jp
[Web Page]
[郵便番号]                  101-0065
[住所]                       東京都千代田区西神田三丁目8番1号
                               千代田ファーストビル東館13F
[Postal Address]              Chiyoda First Bldg. East 13F,
                               3-8-1 Nishi-Kanda Chiyoda-ku,
                               Tokyo 101-0065, JAPAN

[電話番号]                  03-5215-8451
[FAX 番号]                   03-5215-8452
```

# Questions to Consider:

- User Experience Issues
  - What features will benefit Internet users?
  - What can we do to minimize the "Babel effect"?
- Data Reliability, Accuracy, Operational Issues
  - Impact on applications that automate DNS and Whois queries?
  - Impact on law enforcement, brand protection, analysis of malicious conduct
- Security & Standardization Issues

# Status

- ICANN's Board of Directors tasked GNSO, ALAC, CCNSO, GAC and SSAC to form a WG to study internationalized registration data submission and display specifications
- ICANN staff prepared WG charter and implementation plan
- ICANN staff and SSAC jointly studying
  - Current practices among CCTLDs
  - Requirements for standard functionality
  - Conventions and standards from other communications media (e.g., postal service)



# Internationalized registration data WG

- Interested parties encouraged to participate
  - CCTLD experience is extremely valuable
  - CCNSO participation is critical
- At Seoul
  - Wednesday
  - 28 October
  - 15:00 – 14:30
  - Crystal A