IDN, Internationaliserade domännamn

Internetdagarna
Stockholm
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Agenda

▶ **Worldwide Domain Market and Challenges**

▶ **VeriSign's IDN Program**

▶ **Standards and Guidelines**

▶ **Migration to IDN Standards**

▶ **Using IDNs**

▶ **Questions and Answers**

Worldwide Domain Market & Challenges

Worldwide Domain Name Market Today

Facts…

▶ **50,613,339 domain names exist in the worldwide market today.**

▶ **Today, domain names can only be represented in the English characters.**
  - A-Z, 0-9, &, -
  - www.myname-1234.com

So…

▶ **Providing local language choice for domain names represents a new growth segment in the domain name market.**

Worldwide Domain Name Market[*]

54%
27,096,615
(.com and .net)

38%
19,087,484
(ccTLD)

8%
4,429,240
(other gTLD)
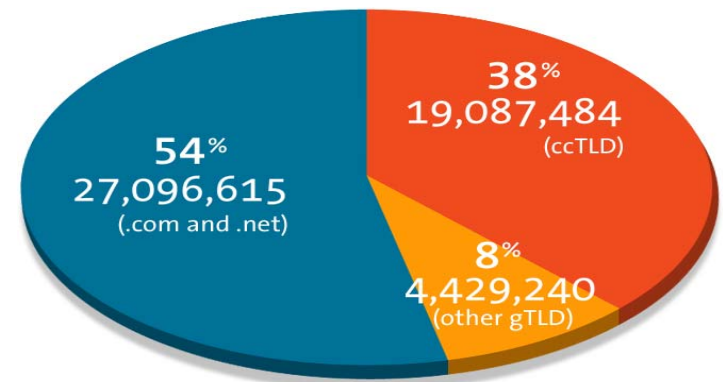
* Sources:

- VeriSign Global Registry, December 1, 2002
- ccTLD info: Domain Name Analysis, Zooknic Internet Geography Project, http://www.zooknic.com, Oct. 2002
- gTLD info: State of the Domain: Third Quarter 2002, SnapNames.com, Oct 24, 2002

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Internet Users Deserve a Language Navigation Choice

▶ **76% of online population resides outside the U.S.**

▶ **Non-English speakers represent more than 66% of the world's economy.**

▶ **43% of Internet users do not speak any English.**

▶ **9 out of 10 Internet users prefer to get local information in their own language***

Dutch 2.0%
Russian 2.9%
Portuguese 3.0%
French 3.5%
Italian 3.8%
Korean 4.5%
German 6.7%
Spanish 7.2%
Japanese 9.7%
All Others 9.3%
English 36.5%
Chinese 10.9%

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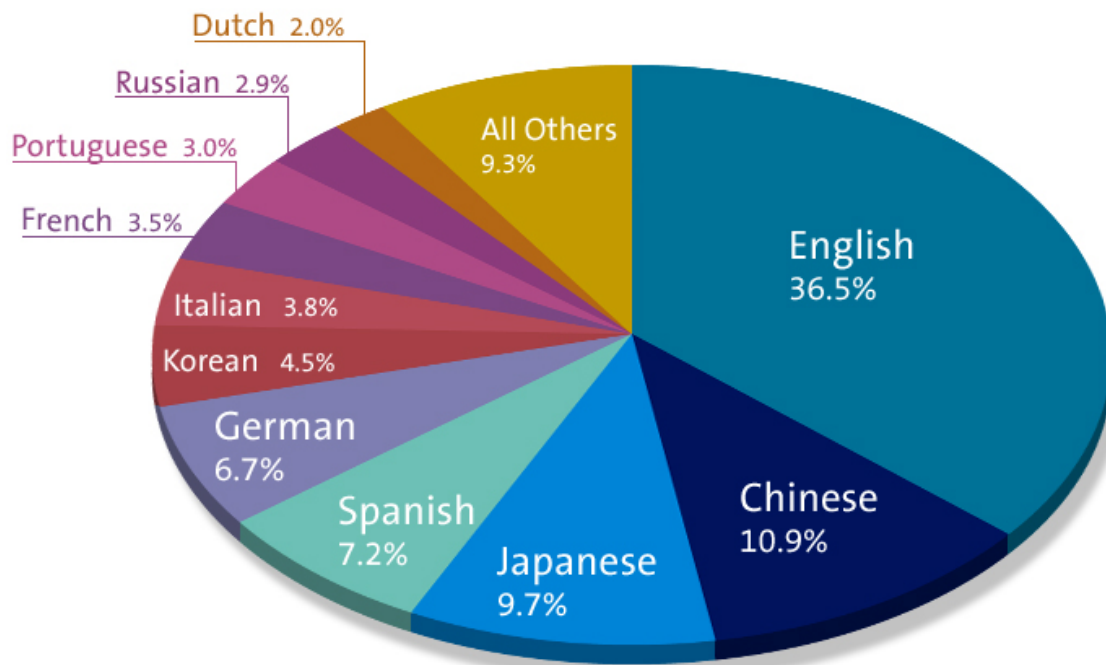
Internet Users Deserve a Language Navigation Choice

▶ **Language navigation choice becomes an ever more urgent need as the growth of Internet users explodes in Asia, Europe, and other regions outside of North America.**

Worldwide Internet Users by Region 2000-2005[*]
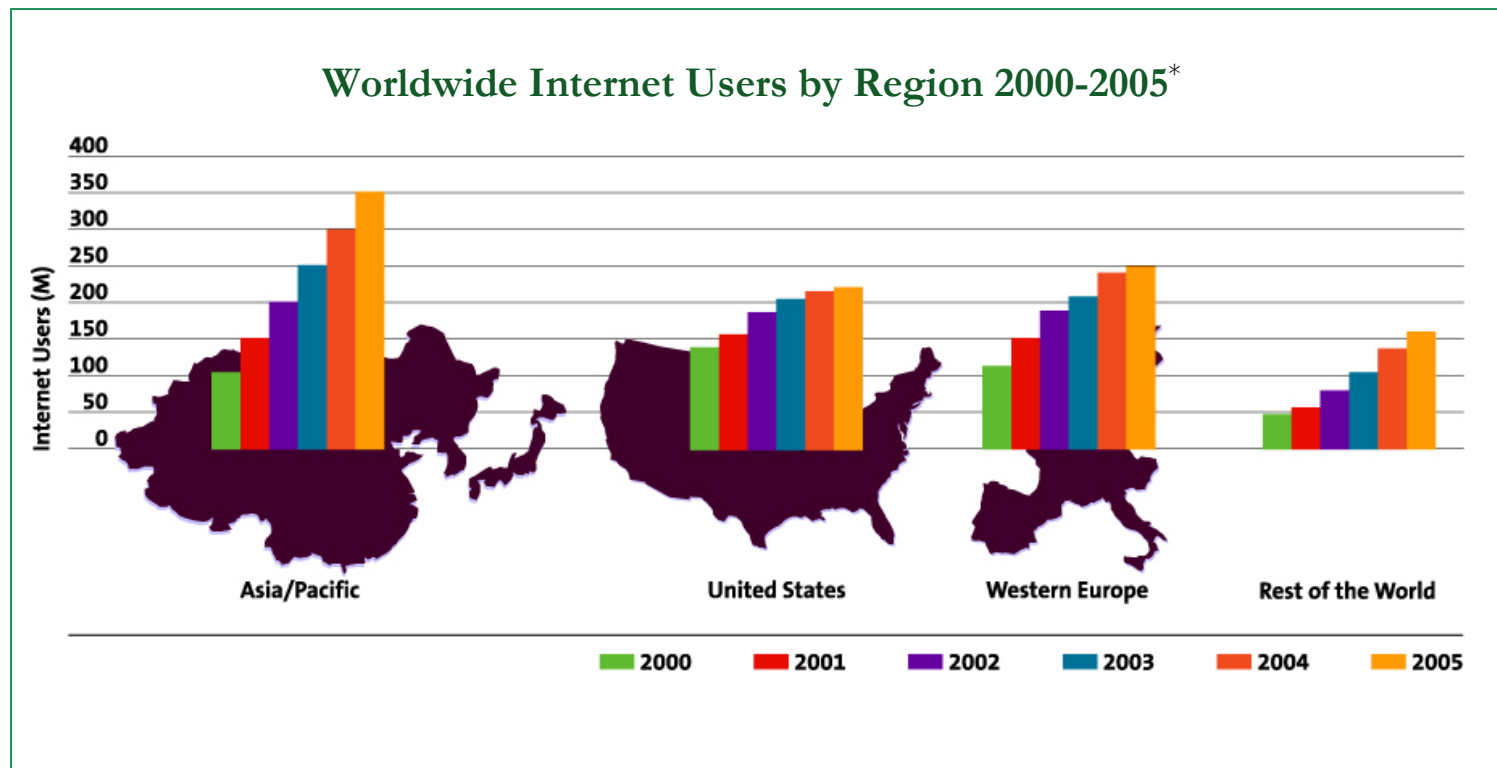
* Source: Internet Commerce Market Model, version 7.1, IDC, April 2001

Companies Deserve a Language Branding Choice

▶ Companies do not have the choice to use their local language brand names on the Internet today to reach local customers.

Norwegian

Hødnebø   *not*   http://www.hodnebo.com

Norwegian

Hankø   *not*   http://www.hanko.com

Danish

øl   *not*   http://www.ol.com

Swedish

gåochlöpkliniken.com   *not*   http://www.gaochlopkliniken.com

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IDNs Allow Internet Users to Navigate in their Language

Norwegian

http://www.atelierhødnebø.com

Norwegian

http://www.hankø.com

Finnish

http://www.pääoma.com/

Danish

http://www.brændendekærlighed.com
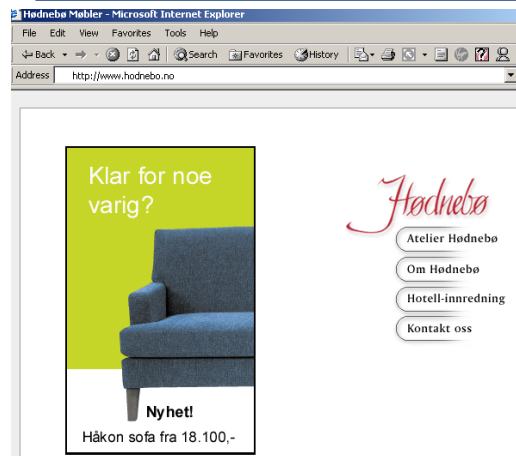
VeriSign IDN Program

| Phase 1 | Registrar Preparation | Participating registrars integrated IDN technology into their systems and tested those systems through the certification process |

| Phase 2 | Registration | Registration began for second level, non-ASCII character domain names |

| Phase 3 | Resolution | Resolution is enabled in three phases |

VeriSign's IDN Program

Standards and Guidelines for IDNs

IDN Standards (RFC 3940, 3492, 3454 and 3491)

▶ **Internet Engineering Task Force (IETF)**

– **Led effort for IDN standards**

Standardize the way that non-ASCII characters are represented within and handled by DNS

▶ **IDN Standards**

– **IDNs in Applications (IDNA)**

▶ RFC 3490 – Published March 2003

▶ http://www.ietf.org/rfc/rfc3490.txt

– **Name Preparation (nameprep)**

▶ RFC 3492 -- Published March 2003

▶ http://www.ietf.org/rfc/rfc3492.txt

– **String Preparation (stringprep)**

▶ RFC 3454 -- Published December 2002

▶ http://www.ietf.org/rfc/rfc3454.txt

– **Encoding Scheme**

▶ RFC 3491 -- Published March 2003

▶ http://www.ietf.org/rfc/rfc3491.txt

IDNA

nameprep

stringprep

Encoding Scheme

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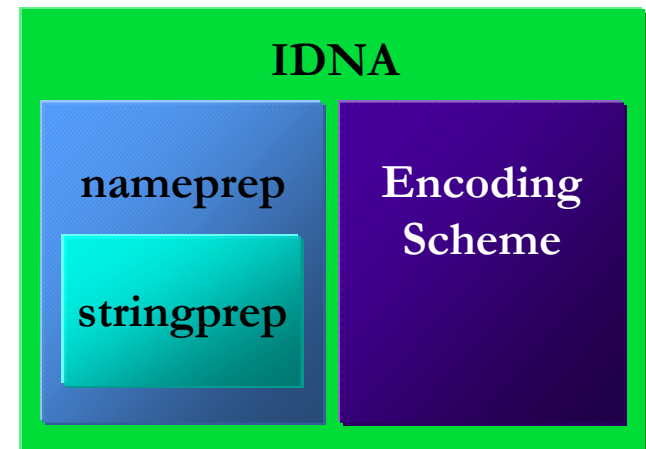
ICANN IDN Guidelines

► **ICANN's Guidelines for the Implementation of IDNs - Draft**

1. Will deploy RFCs 3490, 3491 and 3492
2. Will leverage inclusion based approach for identified languages
3. Will associate each registration with a language
4. Will support the development of language tables
5. Should limit characters associated with languages
6. Should provide informational resources in languages for customers
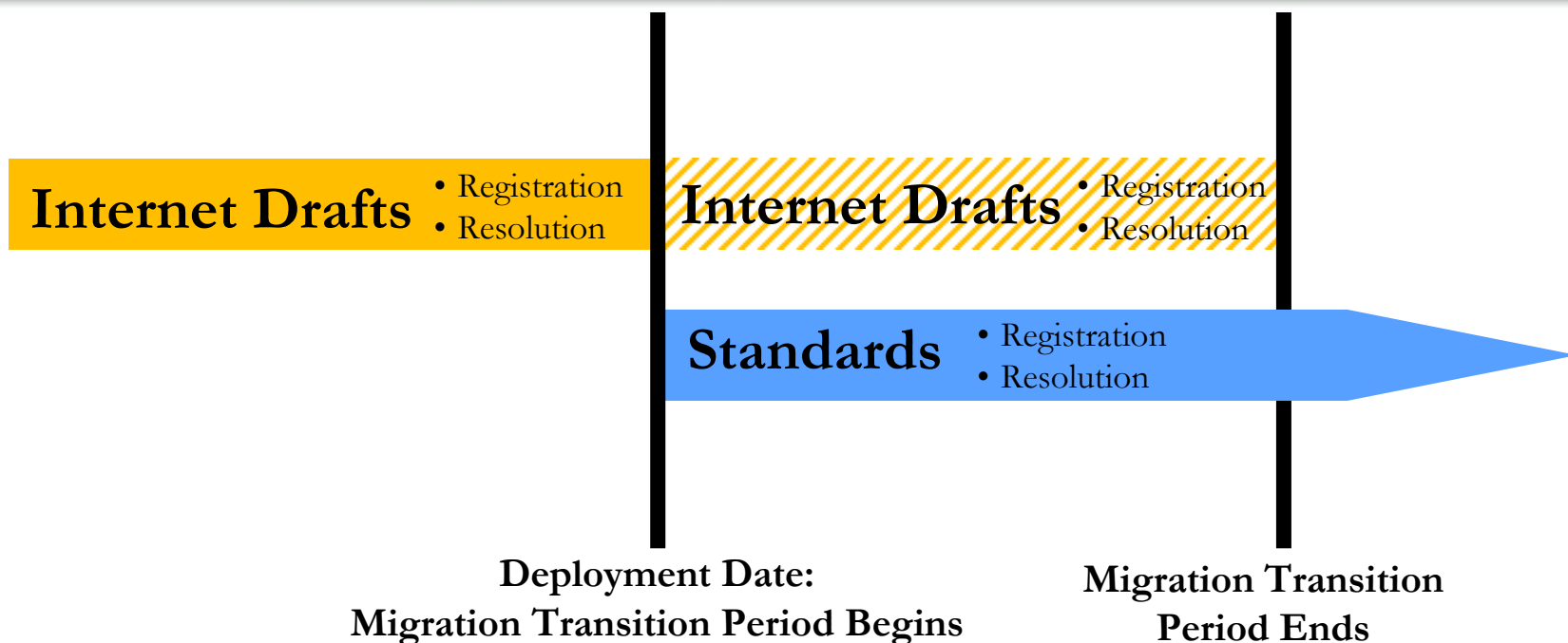
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Migration to IDN Standards

Migration Overview and Update

Internet Drafts : • Registration • Resolution   Internet Drafts • Registration • Resolution

Standards • Registration • Resolution

Deployment Date:
Migration Transition Period Begins

Migration Transition
Period Ends

▶ **Migration Transition Period: <u>Registration</u>**

- Registrars may send IDN registrations in one of two ways:
  1. Internet Drafts-compliant (RACE/nameprep 03)
  2. Standards-compliant (punycode/nameprep RFC 3492)
- VeriSign adds Standards-compliant registrations to database

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Migration Overview and Update

Internet Drafts :	• Registration • Resolution

Internet Drafts :	• Registration • Resolution

Standards	• Registration • Resolution

Deployment Date:
Migration Transition Period Begins

Migration Transition
Period Ends

▶ **Migration Transition Period: <u>Resolution</u>**

– IDNs placed in com/net zones

– Publish mltbd.com/net zones

– i-Nav plug-in will support
  – Internet Drafts (RACE/nameprep 03)
  – Standards (punycode/nameprep RFC 3492)

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Using IDNs

IDNs for Navigation and Email

▶ **Web-based navigation from Verisign and the i-Nav plug-in for IE allow Internet users to work in their own language:**

Navigate the Internet

http://www.atelierhødnebø.com

morten@hankø.com

Send email

▶ **Scandinavian companies can register and use their true brand names using .com or .net web addresses with Scandinavian characters such as: Æ Ø Å Ä Ö É Ü**

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How?

▶ **Web-based Navigation**

– Deployed across VeriSign's 13 gTLD servers around the world.

– Supports .com or .net domain names in any language from any IE browser address bar around the world.

http://www.atelierhødnebø.com

http://www.atelierhødnebø.com

▶ **i-Nav Plug-in**

– Software companion for IE browser and email applications such as Outlook, Outlook Express and popular web-based email providers such as Hotmail and Yahoo.

– Supports all TLDs – no exceptions! Operates completely transparent to the TLD

IDNs in Applications

▶ **Active development on the part of application providers**

– IDNConnect event brought application vendors together to insure product conformity to the standards

– Availability of Open Source SDKs that implement the standard ease application developer effort

▶ **What other applications support IDNs?**

– IDN support in Netscape 7.1/Mozilla 1.4

– Initial implementation in Opera v7.20

– KDE 3.2 Development environment for Unix platforms

– ..more announcements expected…

▶ **IDN Software Consortium**

– Continue the work of the IETF

– November 2003: first meeting

– Embed IDN technologies into applications so there is no dependence on "bridge" technologies like plug-ins

▶ *You can help! Tell your application vendor that IDNs are important and need to be supported in their application. Vendors respond to market demand!*
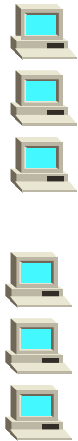
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Cooperation with SENIC

▶ **Recognition that both organizations share the same common objective: the growth and adoption of IDNs**

▶ **Each benefits from the others success**

▶ **Challenges and opportunities are shared collaboratively**
  – Both recognize that the resolution of IDNs in applications cornerstone to success
    ▶ SENIC provides resources and support in the beta testing of new versions of i-Nav including email plug-ins.
    ▶ SENIC to promote the availability of i-Nav plug-in and help facilitate distribution
  – Collaborative marketing plans with common Registrars
  – Joint activity to increase public awareness
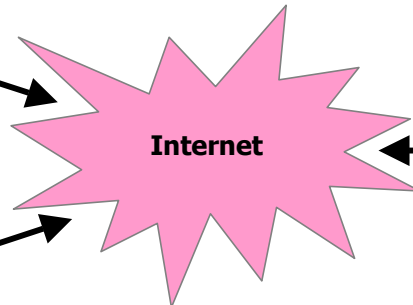
Example Testing Partnership
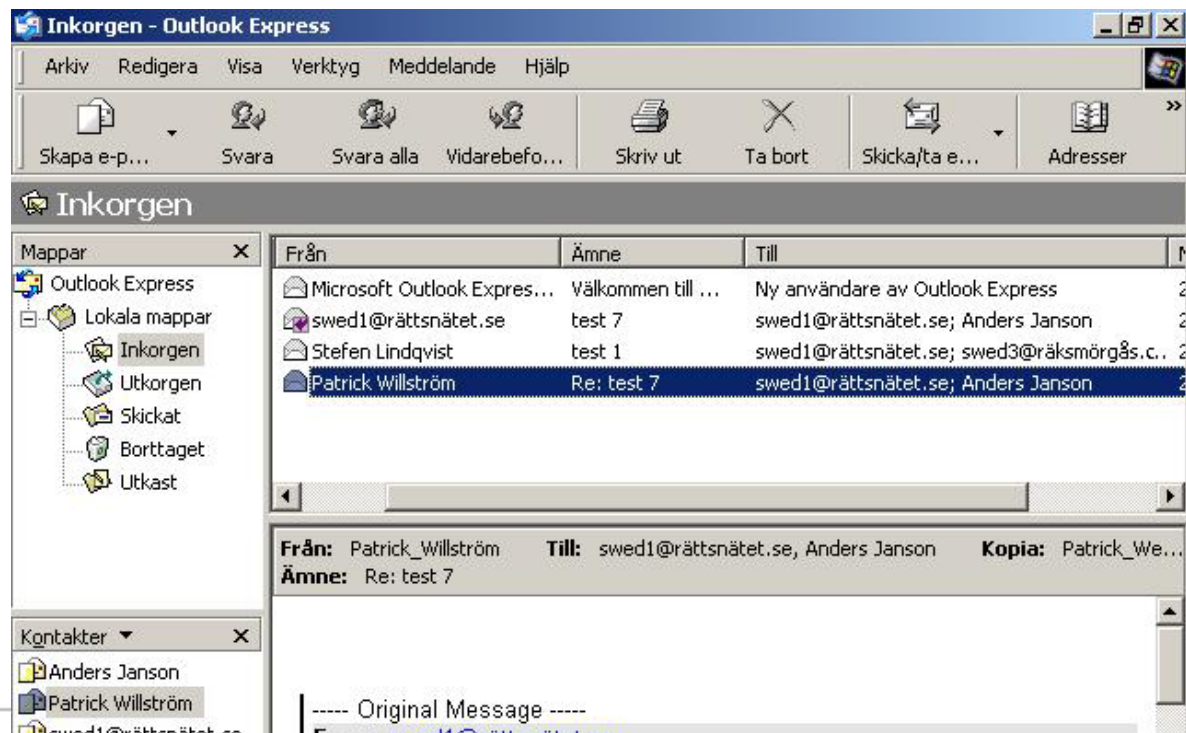
SENIC Testers in Stockholm
User@räksmörgås.se

Internet

**Verisign Test POP3/SMTP Server
in Mountain View, CA**

SENIC DNS Servers
xn--rksmrgs-5wao1o.se

Inkorgen - Outlook Express

| Arkiv | Redigera | Visa | Verktyg | Meddelande | Hjälp |

| Skapa e-p... | Svara | Svara alla | Vidarebefo... | Skriv ut | Ta bort | Skicka/ta e... | Adresser |

Inkorgen

Mappar
- Outlook Express
  - Lokala mappar
    - Inkorgen
    - Utkorgen
    - Skickat
    - Borttaget
    - Utkast

Från	Ämne	Till	
Microsoft Outlook Expres...	Välkommen till ...	Ny användare av Outlook Express	
swed1@rättsnätet.se	test 7	swed1@rättsnätet.se; Anders Janson	
Stefen Lindqvist	test 1	swed1@rättsnätet.se; swed3@räksmörgås.c..	
Patrick Willström	Re: test 7	swed1@rättsnätet.se; Anders Janson	

Från: Patrick_Willström **Till:** swed1@rättsnätet.se, Anders Janson **Kopia:** Patrick_We...
Ämne: Re: test 7

Kontakter

- Anders Janson
- Patrick Willström

----- Original Message -----

For More Information

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▶ **Visit our Web site:**

http://www.verisign.com/nds/naming/idn/

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The Value of Trust℠

Questions and Answers