Designing a Small Registries’ Tool Kit

Internet Conference 1999 at Pacifoco Yokohama

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Information Processing Center
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Agenda

- Network Administration
- Network Resources
- Registry Services
- Administrators at Work
- Tools for Administrators
- Toolkit Framework
- Maintenance of Database
Agenda

Network Administration
Network Resources
Registry Services
Administrators at Work
Tools for Administrators
Toolkit Framework
Maintenance of Database
Network Administration

machine installation
address assignment
domain name registration
application installation
user education
name server management
trouble shooting
power management
etcetra etcetra ......
Network Administration

machine installation
address assignment
domain name registration
application installation
user education
name server management
trouble shooting
power management
etcetra etcetra ......
Network Resources

IP address
AS # (Autonomous System Number)
domain name
routing information
etc ......

Related Information
administrator information
etc ......
Agenda

Network Administration
Network Resources
Registry Services
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Toolkit Framework
Maintenance of Database
Registry Services

...... resource usage tracking

address (allocation, assignment, delegation)
ASN (assignment)
DNS (registration, delegation)
routing information

..........
IP address administration

ICANN (IANA)

RIPE

APNIC

KRNIC

JPNIC

ARIN

ISP

ISP

ISP

ISP
DNS administration

ICANN (IANA)

KRNIC

JPNIC

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Registries’ Database

Network
Domain Names
Administrators
Hosts
Routing Information
etc......
Agenda

Network Administration
Network Resources
Registry Services
**Administrators at Work**
Tools for Administrators
Toolkit Framework
Maintenance of Database
Administrators at Work

going address block from ISP (or registry)
registration of domain names to registry
setup name servers
registration of NS to registry’s database
updating any entries of the registry’s database

assignment of addresses
registration of subdomains
delegation of subdomain administration
maintenance of backbone routers
etc ......
Agenda

Network Administration
Network Resources
Registry Services
Administrators at Work
Tools for Administrators
Toolkit Framework
Maintenance of Database
Tools for Administrators

assistance tools for network administrators
updating entries on registry’s database
building a database for internal information
publishing resource usage (DNS, whois, ....)
Agenda

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  - Toolkit Framework
- Maintenance of Database
Toolkit Framework

query to registry database

name server configuration

whois server configuration

simple database

admin.

update

request

request & update

admin.
Maintenance of Database

- Database
- Whois database
- Domain Admin Host
- Address Admin Host
- Name server configuration
- Update report
- Authentication
- Authorization
- Web
- E-mail
Agenda

Network Administration
Network Resources
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Administrators at Work
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Toolkit Framework

Maintenance of Database
Maintenance of Database

automation as much as possible
name server, whois server
config file generation, etc ......

exploring user driven updating mechanism
PGP, S/MIME, etc......
Maintenance of Database

plain text files as a database
- easy to read
- easy to transfer
- easy to prepare test data

shell scripts as a toolset
- easy to understand
- easy to transfer
- it’s only a prototype (:-)
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