

Current Topic – EPP –

TWNIC
Jeff Yeh <jeff@twNIC.net.tw>

Overview

> EPP Introduction

What is EPP

Why EPP

EPP relate information

> TWNIC EPP Implementation

TWNIC EPP Environment

EPP issue

Policy issue

TWNIC technical issue

2

What is EPP

- > Object model
- > Client-Server Protocol for provisioning and management objects
- > XML Based
- > Generic object management operation
- > Extensible framework

EPP Command

> Session Management Commands

Login: login to EPP server

Logout: logout from EPP server

> Query Commands

Check: retrieve object availability

Info: retrieve information about an object

Transfer: retrieve status of a transfer operation

Poll: retrieve queued messages at server

> Object Transform Commands

Create: create an instance of an object

Delete: delete an instance of an object

Renew: extend the validity of an object

Transfer: initiated a change in the sponsorship of an object

Update: change information associated with an object

Typical EPP command

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0
  epp-1.0.xsd">
  <command>
    <info>
      <obj:info xmlns:obj="urn:ietf:params:xml:ns:obj"
        xsi:schemaLocation="urn:ietf:params:xml:ns:obj obj.xsd">
        <obj:name>example</obj:name>
      </obj:info>
    </info>
    <clTRID>ABC-12345</clTRID>
  </command>
</epp>
```

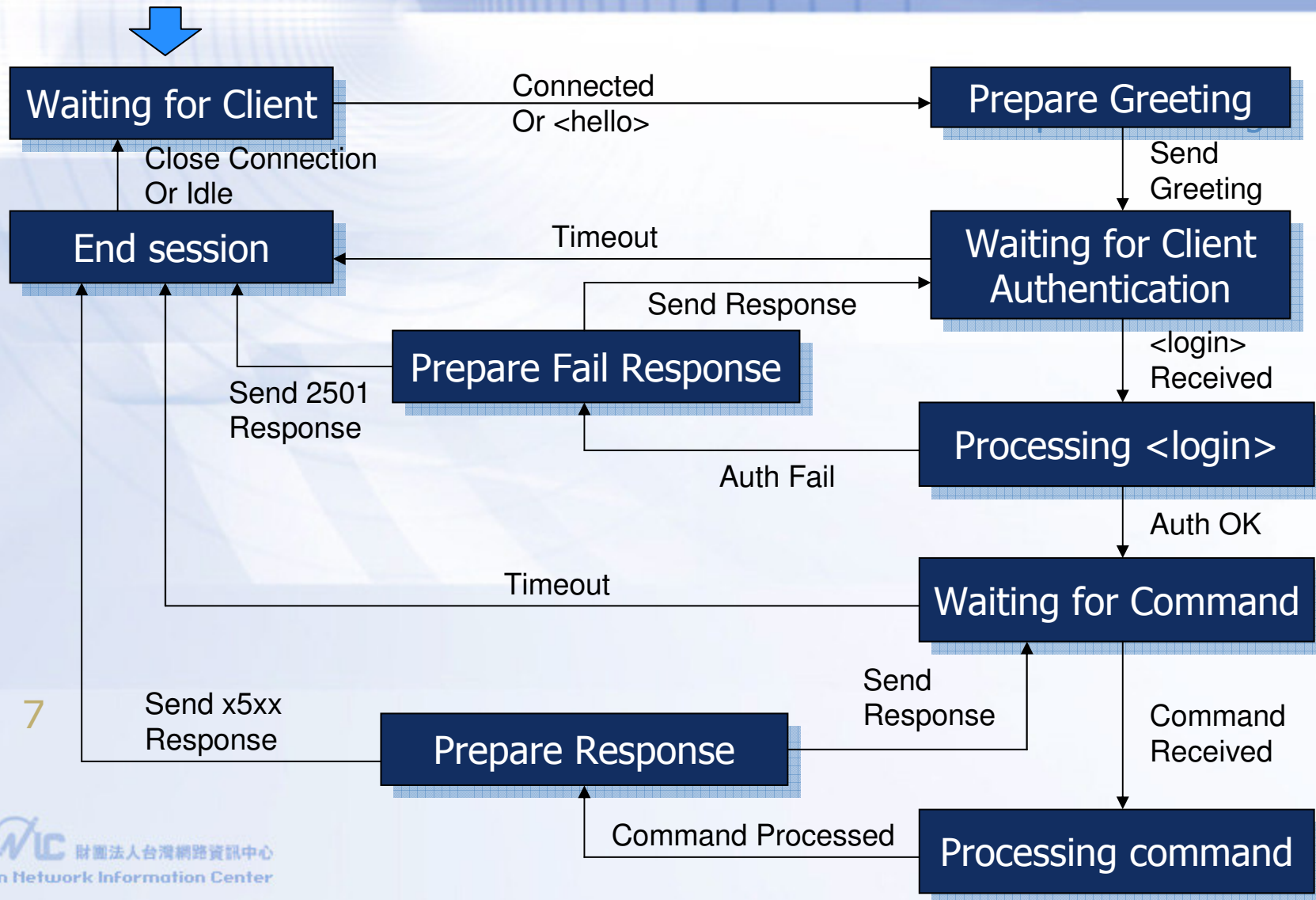
5

Typical EPP response

```
<?xml version="1.0" encoding="UTF-8" standalone="no"?>
<epp xmlns="urn:ietf:params:xml:ns:epp-1.0"
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
  xsi:schemaLocation="urn:ietf:params:xml:ns:epp-1.0
  epp-1.0.xsd">
  <response>
    <result code="1000">
      <msg lang="en">Command completed successfully</msg>
    </result>
    <trID>
      <clTRID>ABC-12345</clTRID>
      <svTRID>54321-XYZ</svTRID>
    </trID>
  </response>
</epp>
```

6

EPP server state machine

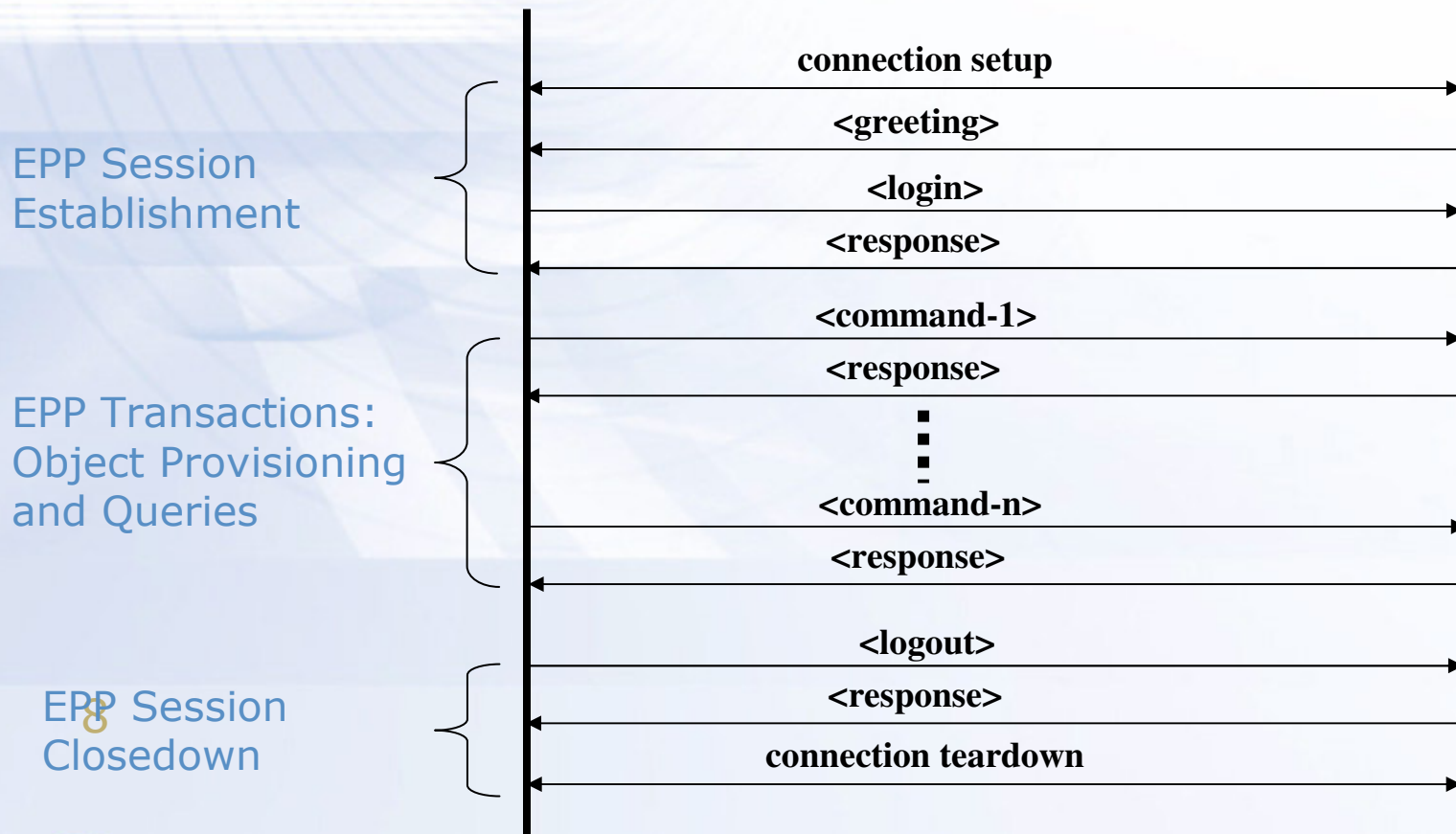


7

A Typical EPP Session

EPP Client (Registrar)

EPP Server (Registry)



EPP domain

Function	Command	Domain	Host	Contact
Session Management	<hello>	N/A		
	<greeting>			
	<login>			
	<logout>			
Transformation	<create>	√	√	√
	<update>	√	√	√
	<delete>	√	√	√
	<renew>	√	N/A	N/A
	<transfer>	√	N/A	√
Query	<check>	√	√	√
	<info>	√	√	√
	<transfer>	√	N/A	√
	<poll>	N/A	N/A	N/A

Why EPP

- > IETF Standard
- > Extensible
- > UTF8
- > Security
- > Well-defined atomic operation
- > Automation

10

EPP current status

> RFC Standard (RFC-EDITOR)

draft-ietf-provreg-epp-09.txt

draft-ietf-provreg-epp-contact-07.txt

draft-ietf-provreg-epp-domain-07.txt

draft-ietf-provreg-epp-host-07.txt

draft-ietf-provreg-epp-tcp-06.txt

> Standard Port 700 (3121)

> TLDs adopting EPP

gTLDs: .biz, .info, .name, .coop

ccTLDs: .us, .au, .cn, .tw, .at, .pl,...

EPP related information

- > Provreg WG website:
<http://www.ietf.org/html.charters/provreg-charter.html>
- > Mail Archive: <http://www.cafax.se/ietf-provreg/maillist/>

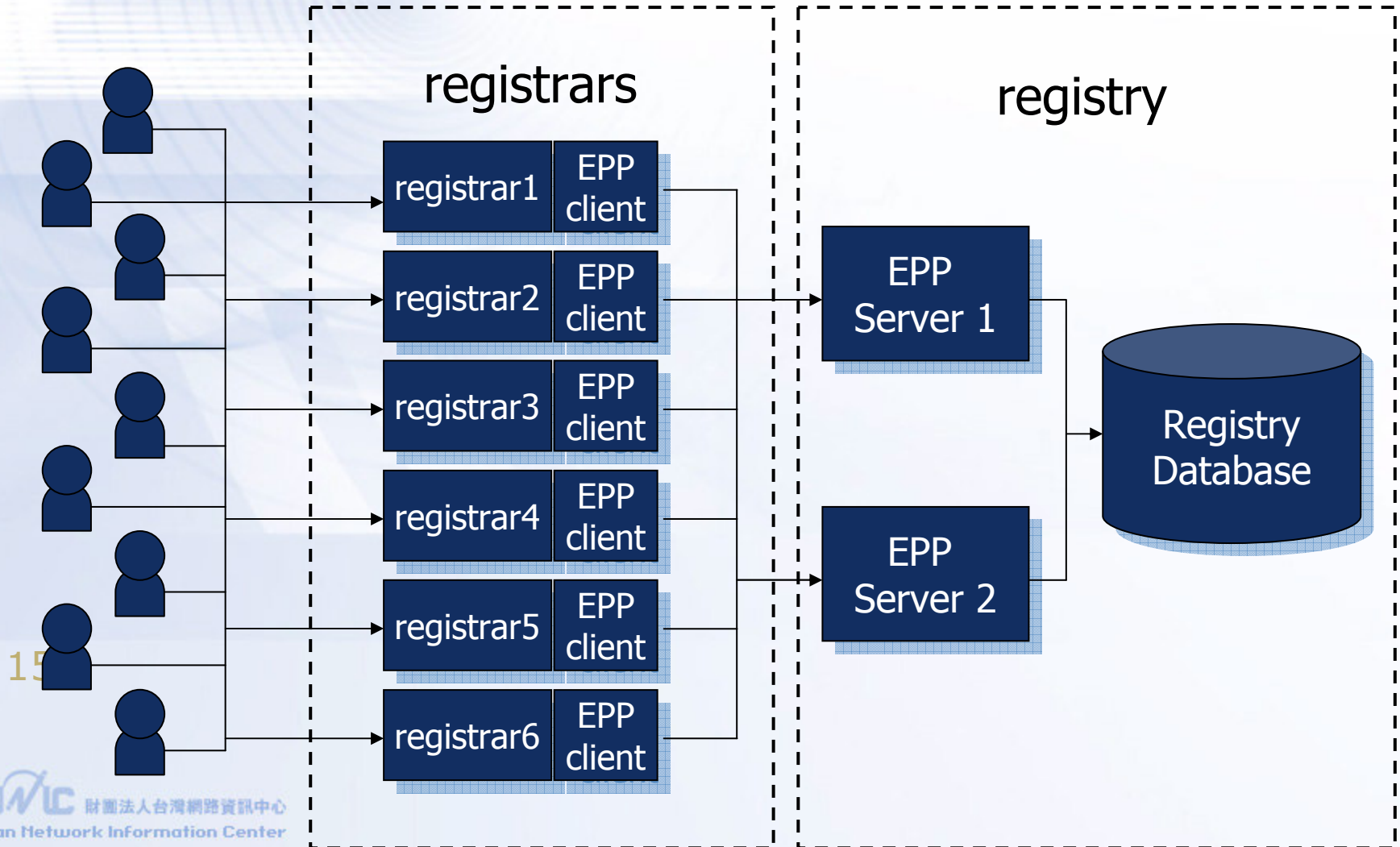
TWNIC environment

- > draft-ietf-provreg-epp-04.txt
- > draft-ietf-provreg-epp-contact-02.txt
- > draft-ietf-provreg-epp-domain-02.txt
- > draft-ietf-provreg-epp-host-02.txt

TWNIC environment

- > EPP Server OS:
Linux 2.4.18
- > Develop Language:
Perl 5.8.0
- > Database Server OS:
SunOS 5.8
- > Database Server:
Oracle 8.0.5

TWNIC EPP Structure



TWNIC EPP status

- > Launch at Jan 20th, 2004
- > Connect with 18 registrars (via NeuLevel)
- > More than 300 domain name registered on the first day
- > Groth

EPP issue

- > Linked Status
- > Roid
- > Return code
- > Poll message
- > Extension for each registry
- > Schema validation (*.xsd)

Policy issue

- > Transfer procedure
- > Rename
- > Grace Period
- > Special Field

TWNIC technical issue

- > Database code type
BIG5->UTF8
- > Database layout
- > Front end user interface
problem
BIG5->UTF8
- > API & EPP parallel run

19

IDN over EPP

- > UTF8
- > No standard until now

20