



.pl struggle towards epp

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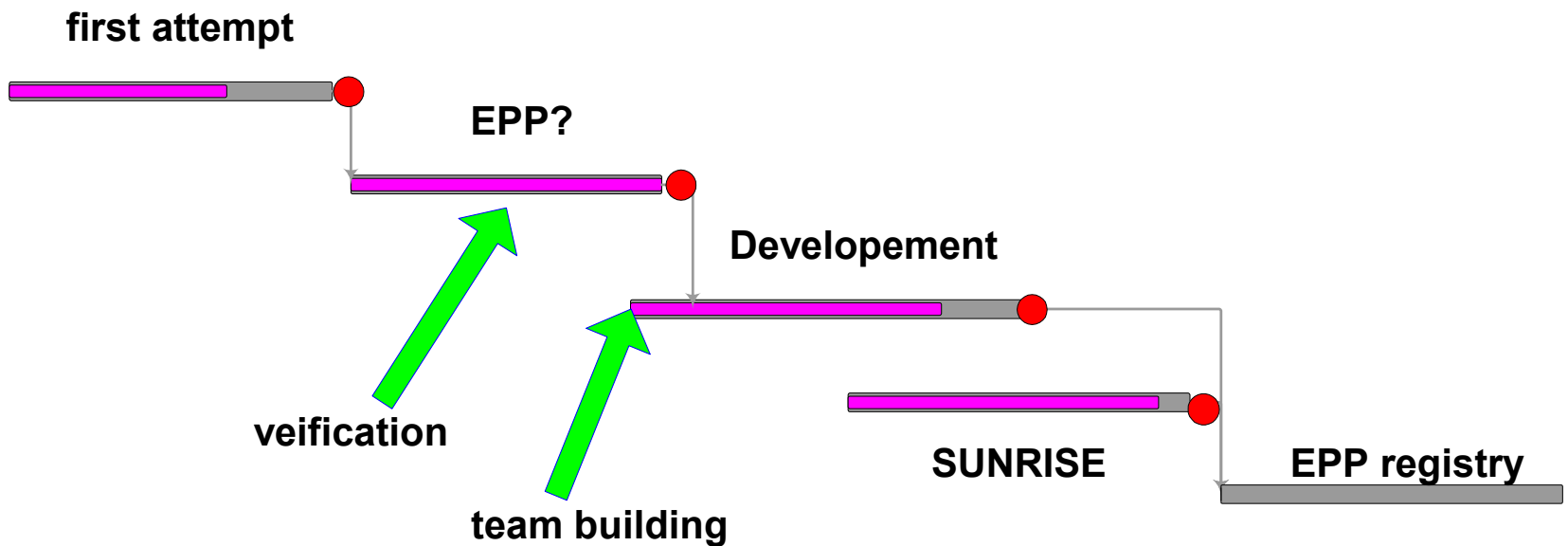
dnr-forum; amsterdam 2003



History

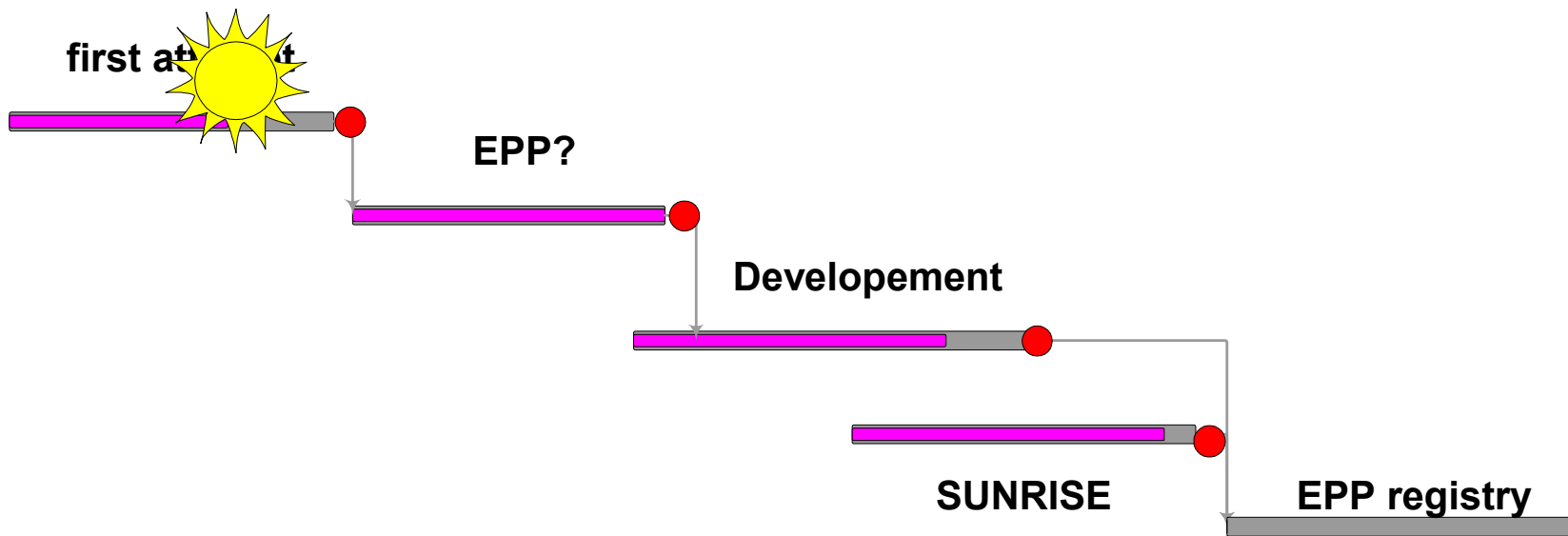
- 1991 .PL is alive
- 1995 – first registrations under .PL
- 1997 – first billing
- 1995 – Nov 2002 – no accredited registrars
- 2003 - Feb/March – epp????

schedule



schedule

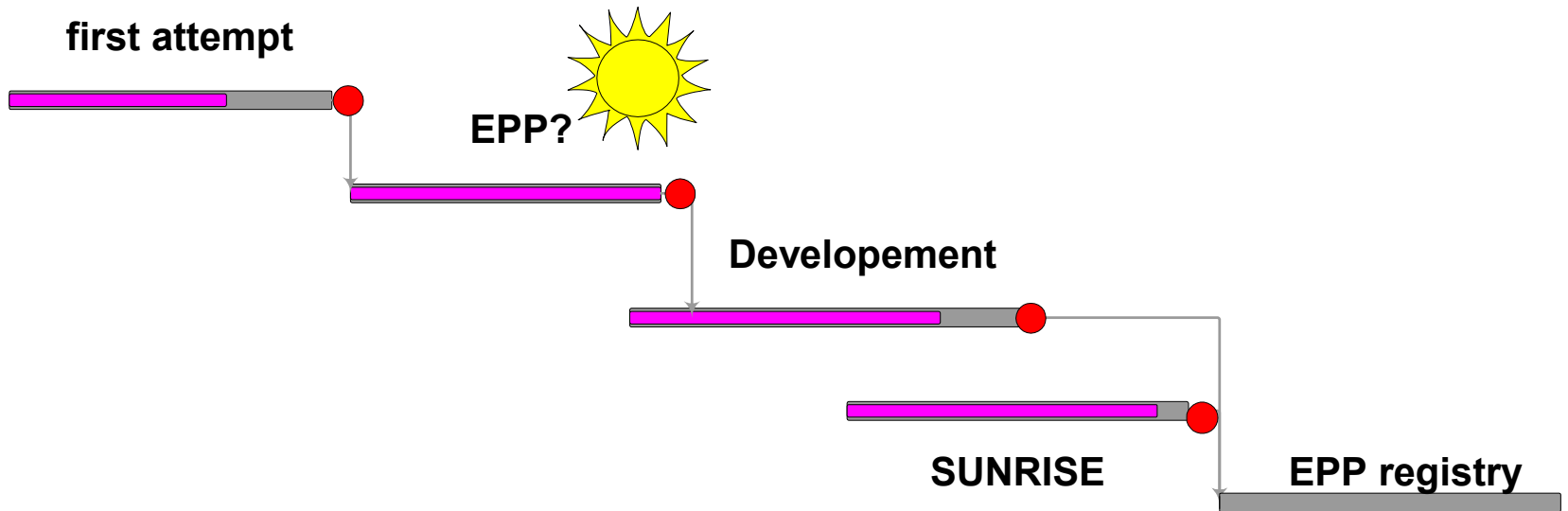
- First attempt – JANUARY 2001 – MAY 2002
- EPP decisions – MAY 2002 – 2002 AUGUST
- Developement – AUGUST 2002
– 2003 JANUARY
- SUNRISE – NOVEMBER 2002 – MARCH 2003
- EPP – MARCH 2003 (I hope...)



First attempt

- Contract with external IT company
- No clear expectations
- No professional analysis and project
- One system for both: REGISTRANTS (direct registrations) and REGISTRARS
- Own protocol based partially on XML

Fortunately we failed! 😊



EPP decisions

- Decision: move towards EPP
- First idea: „PURE” EPP

- After first analysis (all documentation in UML)
lawyers and registrars had rised objections

lawyers: consumer data protection

- New attribute for contact object
 - individual
 - boolean
 - true if the contact represent an individual person
- Modification disallowed
- Optional
- Default value: false

lawyers: consumer data protection

- New attribute for contact object
 - `consentForPublishing`
 - boolean
- Modification allowed
- Optional
- Default value: false

lawyers: consumer data protection

- New parameter for contact:info:
 - **authInfo**
- Not every client is allowed to view full contact info – only sponsoring client or authorized client
- Optional



lawyers: arbitration court/court of justice

- New attribute for domain object
 - reason
 - string
 - the reason of registration of the specified domain name; justification of registrant's right to that name
- Required!



registrars: WE NEED MORE TIME!

- New command added for booking domains
- **Book Domain**
 - Domain name
 - Name servers
 - Reason

management:
fast transfers registrar→registrar
and NASK→registrar

- All transfer requests are immediately approved by the server
- Not used: transfer approval, transfer rejection and transfer request cancellation



lawyers: agreement includes name servers

- NASK can not change the agreement on its own!
- Thus, host name change is prohibited
 - Not used host:chg tag

lawyers: number of NSs

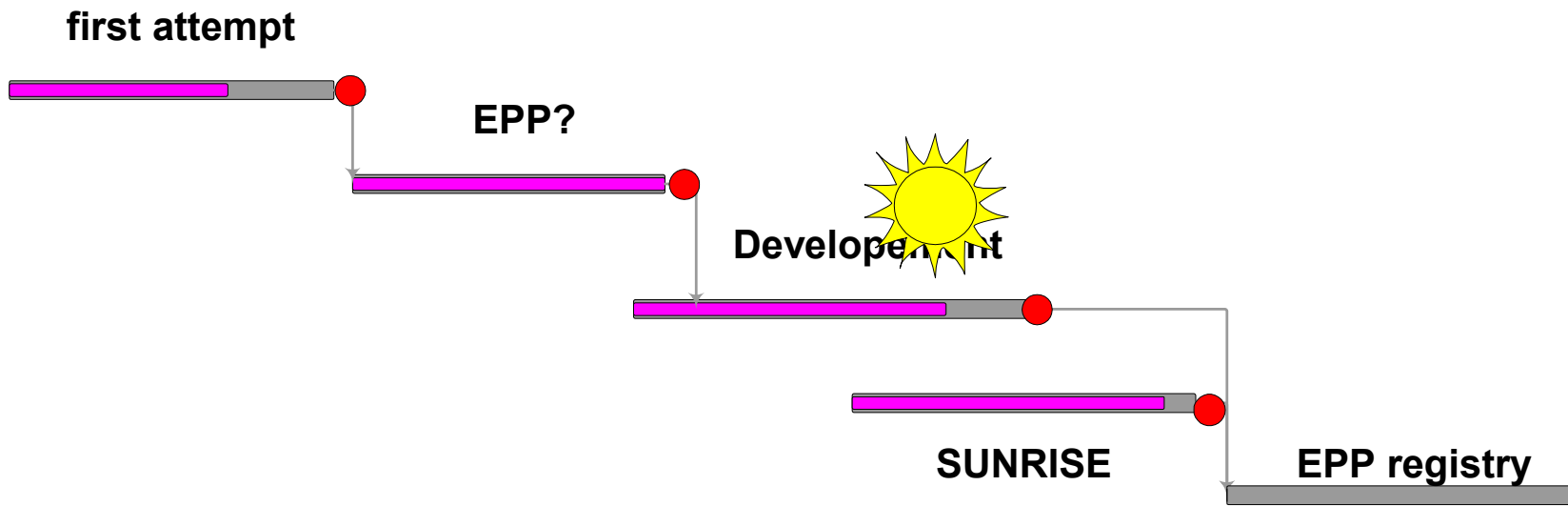
- We have official interpretation from Office of Telecommunications and Post Regulation what the DNS is, so...
- ...During domain delegation existence of SOA record is checked
- ...Minimum and maximum number of name servers

techs: others checks

- During host creation existence of A record is checked
- Association of IP address with external host is not allowed
- During domain delegation existence of SOA record is checked
- Minimum and maximum number of name servers

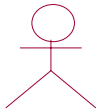
...

- Numerical contact id
- Minimum and maximum registration period
- Only one renew during the period
- No billing and admin contact for domains allowed, only one tech contact allowed



Basic Analysis Terms

- Actor is a person or a machine or a software system cooperating with the modelling system.
- Use case is a description of a sequence of activities including their alternatives that are executed to give the actor an observable and material effect.
- Use-case diagram, state diagram.

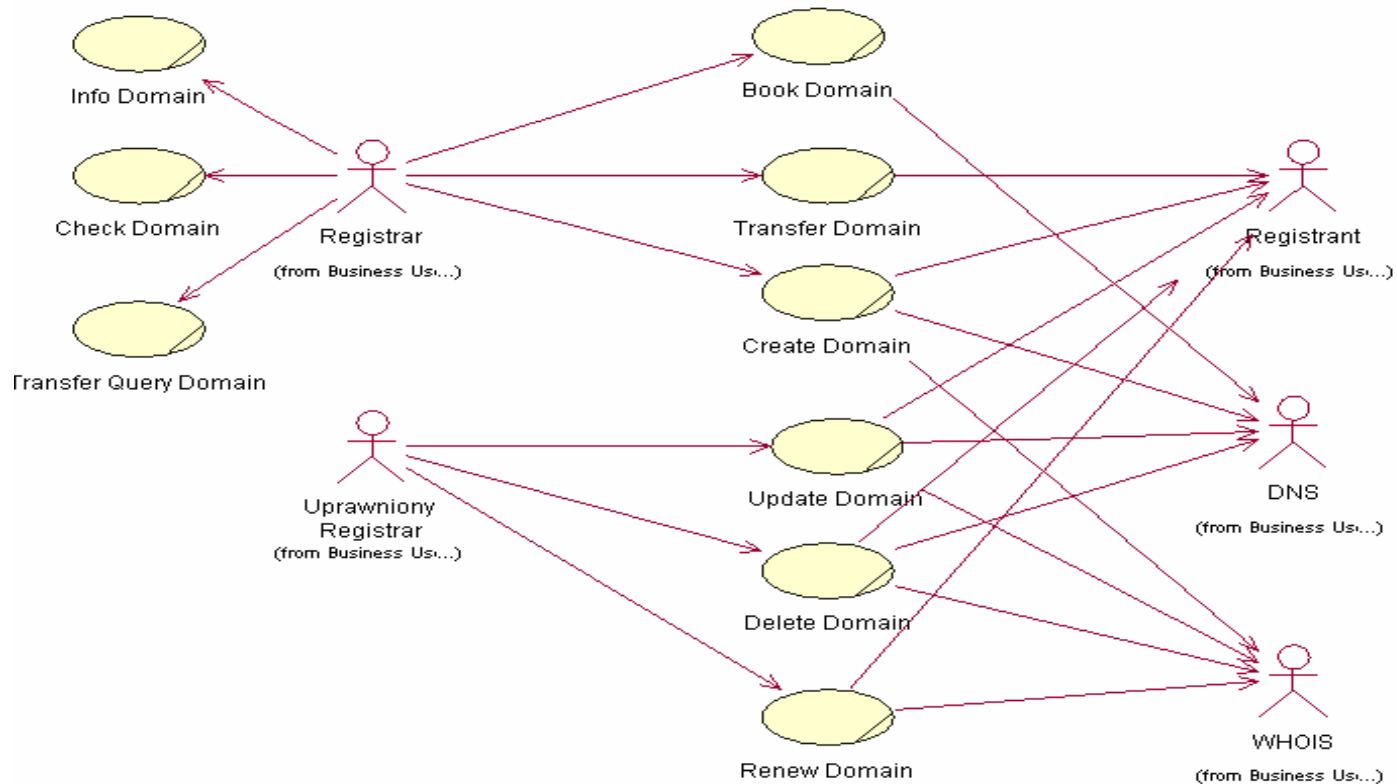


Aktor

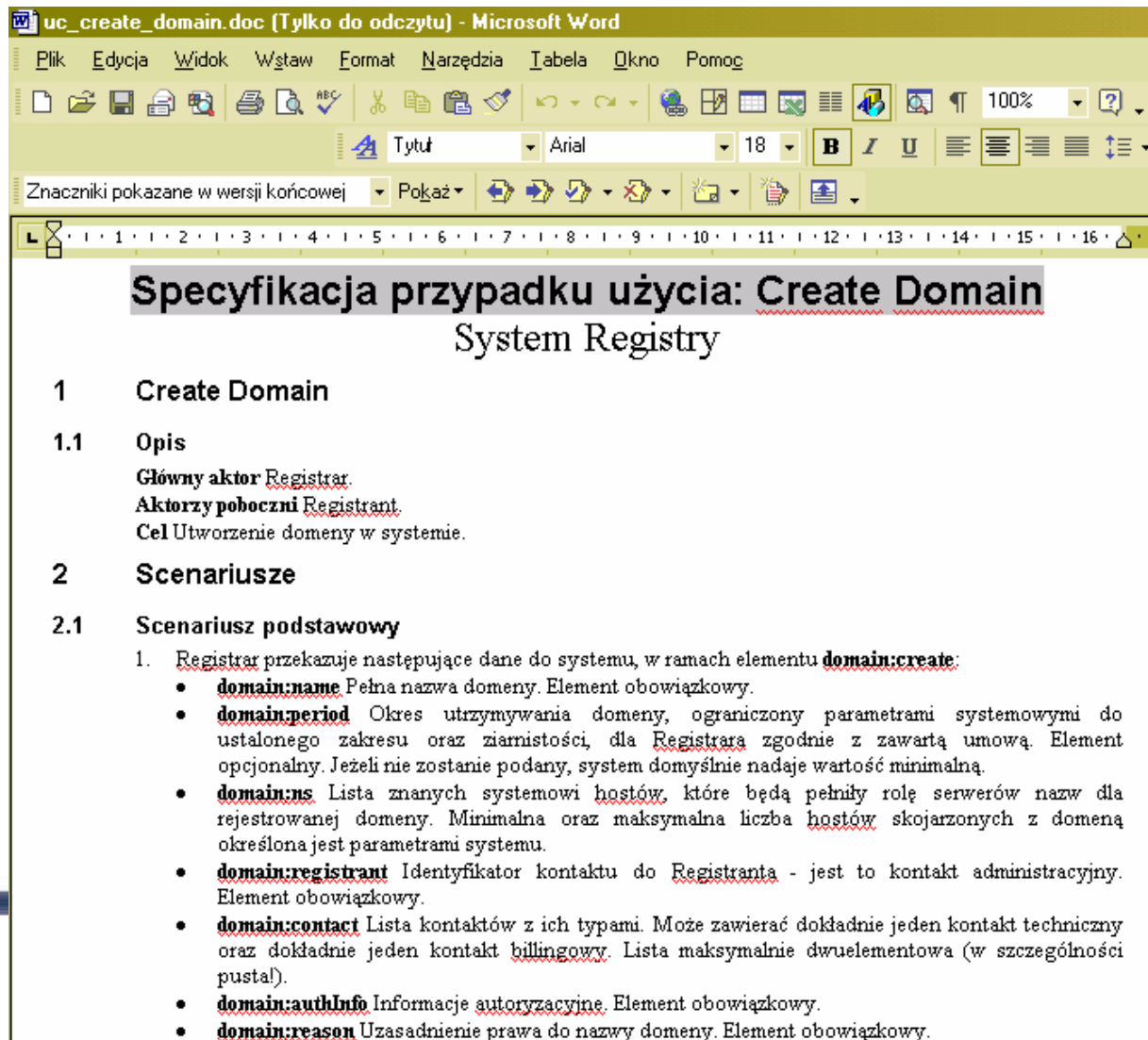


Przypadek użycia

Registry Use Case Diagram



Registry Use Case



uc_create_domain.doc (Tylko do odczytu) - Microsoft Word

Plik Edycja Widok Wstaw Format Narzędzia Tabela Okno Pomoc

Tytuł Arial 18 B I U

Znaczniki pokazane w wersji końcowej Pokaż

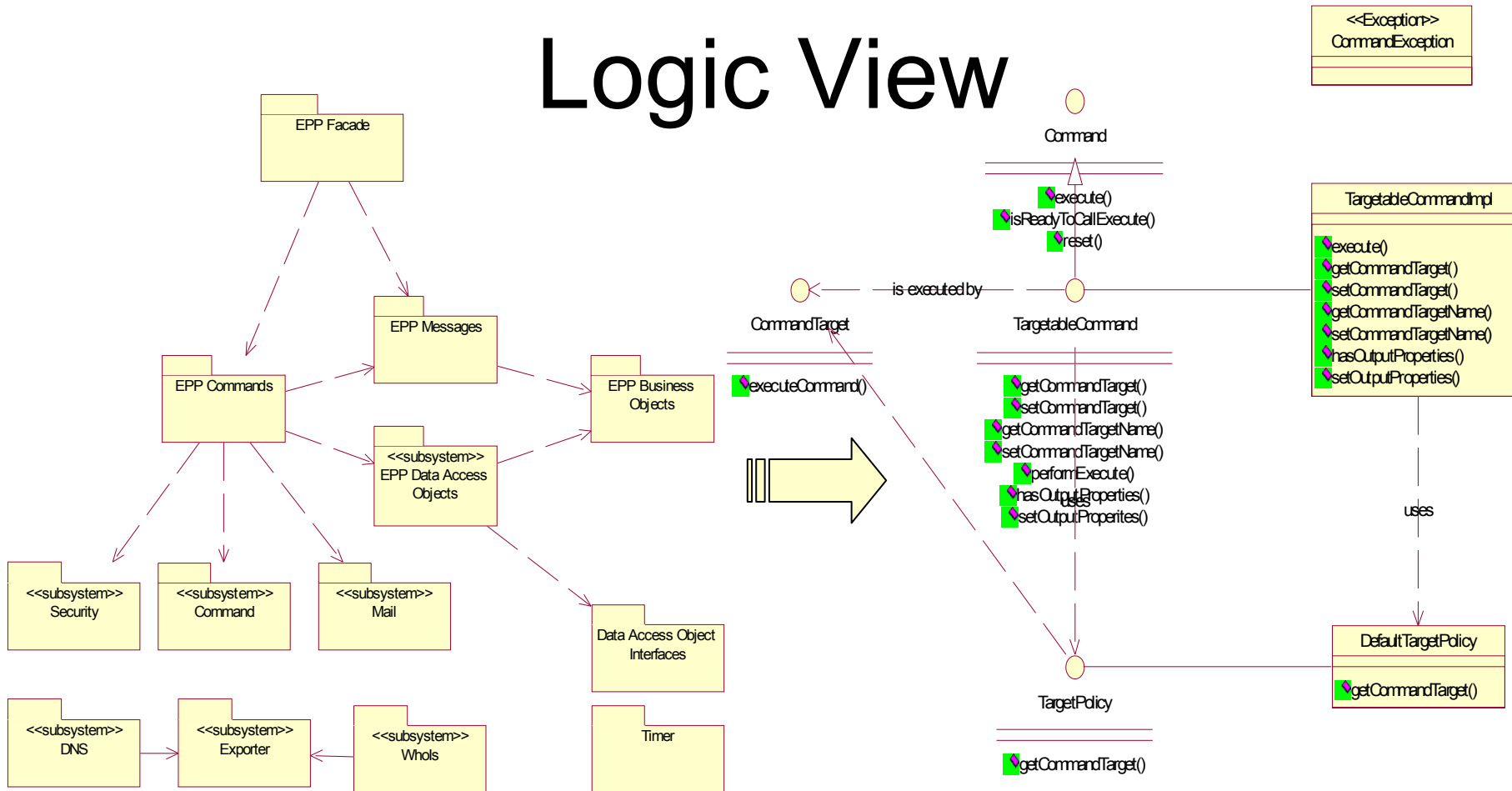
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

Specyfikacja przypadku użycia: Create Domain System Registry

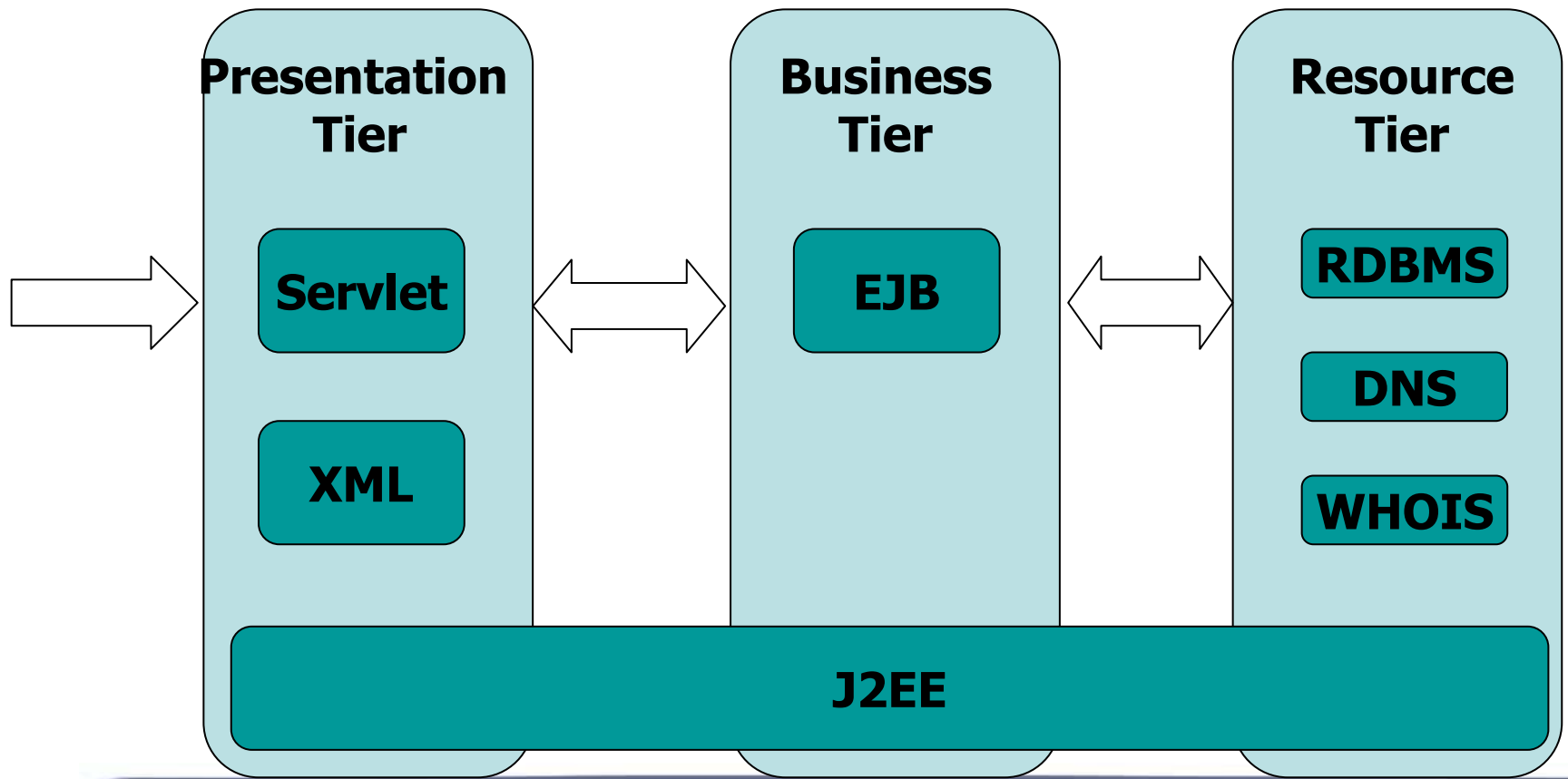
- 1 Create Domain**
 - 1.1 Opis**

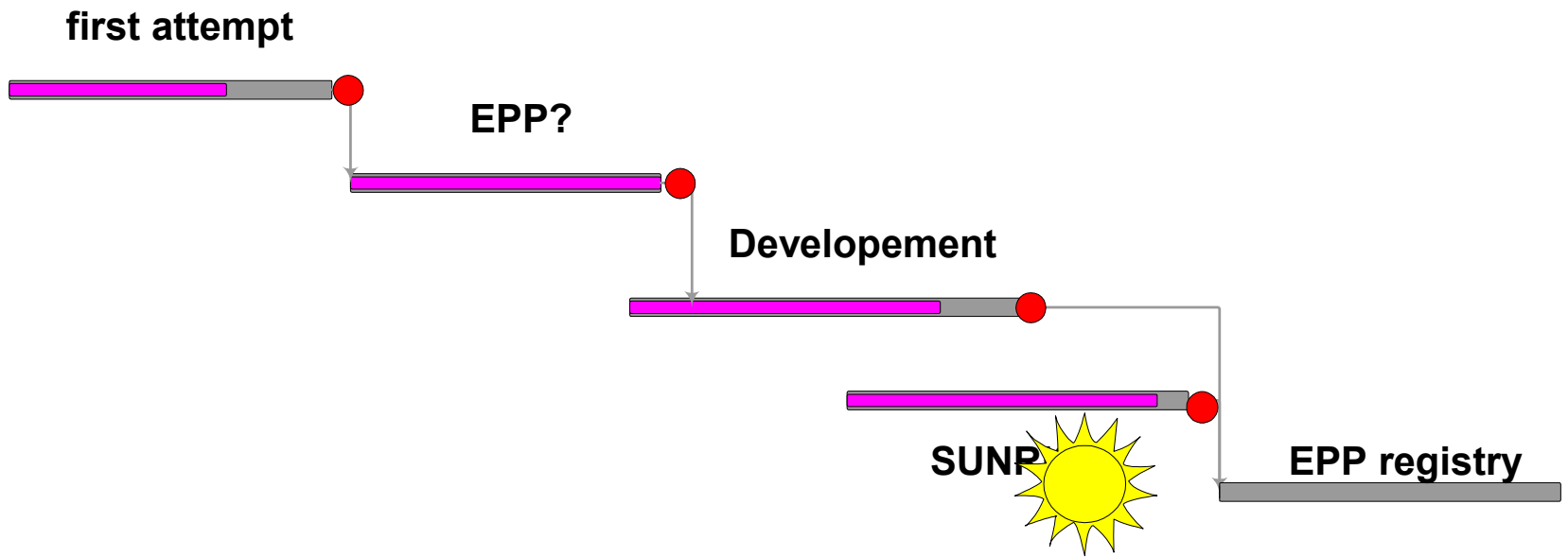
Główny aktor Registrar
Aktorzy poboczni Registrant
Cel Utworzenie domeny w systemie.
 - 2 Scenariusze**
 - 2.1 Scenariusz podstawowy**
 - Registrar przekazuje następujące dane do systemu, w ramach elementu **domain:create**:
 - domain:name** Pełna nazwa domeny. Element obowiązkowy.
 - domain:period** Okres utrzymywania domeny, ograniczony parametrami systemowymi do ustalonego zakresu oraz ziarnistości, dla Registrara zgodnie z zawartą umową. Element opcjonalny. Jeżeli nie zostanie podany, system domyślnie nadaje wartość minimalną.
 - domain:ns** Lista znanych systemowi hostów, które będą pełniły rolę serwerów nazw dla rejestrowanej domeny. Minimalna oraz maksymalna liczba hostów skojarzonych z domeną określona jest parametrami systemu.
 - domain:registrant** Identyfikator kontaktu do Registranta - jest to kontakt administracyjny. Element obowiązkowy.
 - domain:contact** Lista kontaktów z ich typami. Może zawierać dokładnie jeden kontakt techniczny oraz dokładnie jeden kontakt billingowy. Lista maksymalnie dwuelementowa (w szczególności pusta!).
 - domain:authInfo** Informacje autoryzacyjne. Element obowiązkowy.
 - domain:reason** Uzasadnienie prawa do nazwy domeny. Element obowiązkowy.

Logic View



Registry Architecture





Sunrise - conditions

No of domains	discount %
100	10
500	15
1 000	20

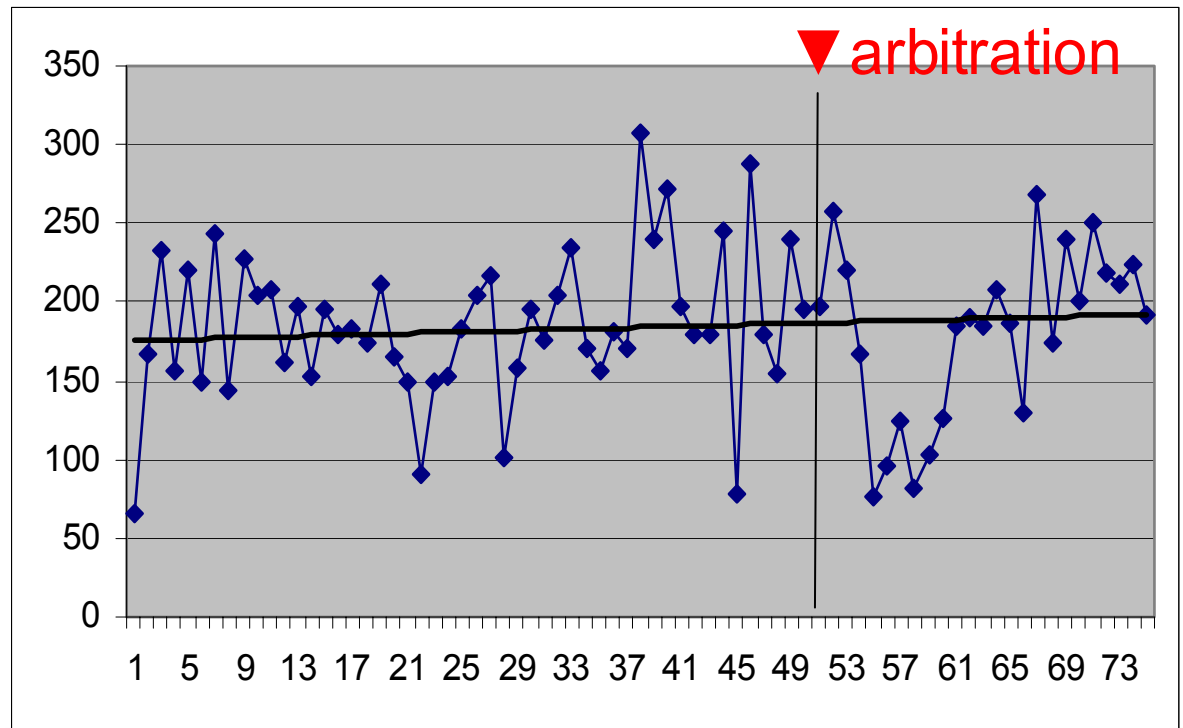
- WWW forms + PGP e-mails
- Optional: Domain booking for 2 weeks
- No arrears
- Payment in 2 weeks after registration
- Information on NASK's web page

DRP

Since January 20th the Arbitration Court (at least one party in Poland) & WIPO (for foreigners) is operational for .PL.

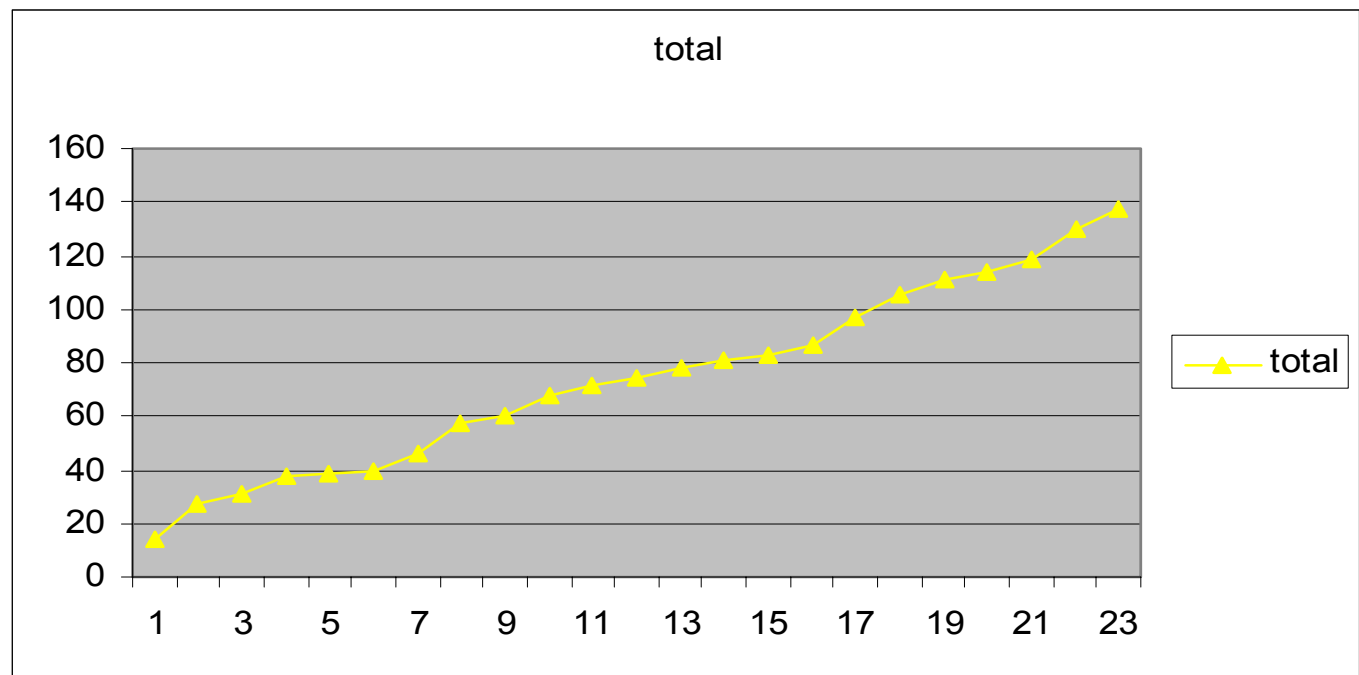
3 cases after
5 working days

same level of
registrations ☹



Sunrise: results after 23 working days

No of registrars:
Dec 2002: 3
Jan 2003: 5



- Over 50 press releases.
- Direct communication with media.

[Internet](#) → [Domeny](#)

115 domen w programie partnerskim

2003-01-27 12:03:33

opr. Łukasz Dec

Do 23 stycznia br. firmy współpracujące z **NASK** w ramach nowego programu partnerskiego zarejestrowały 115 domen internetowych.

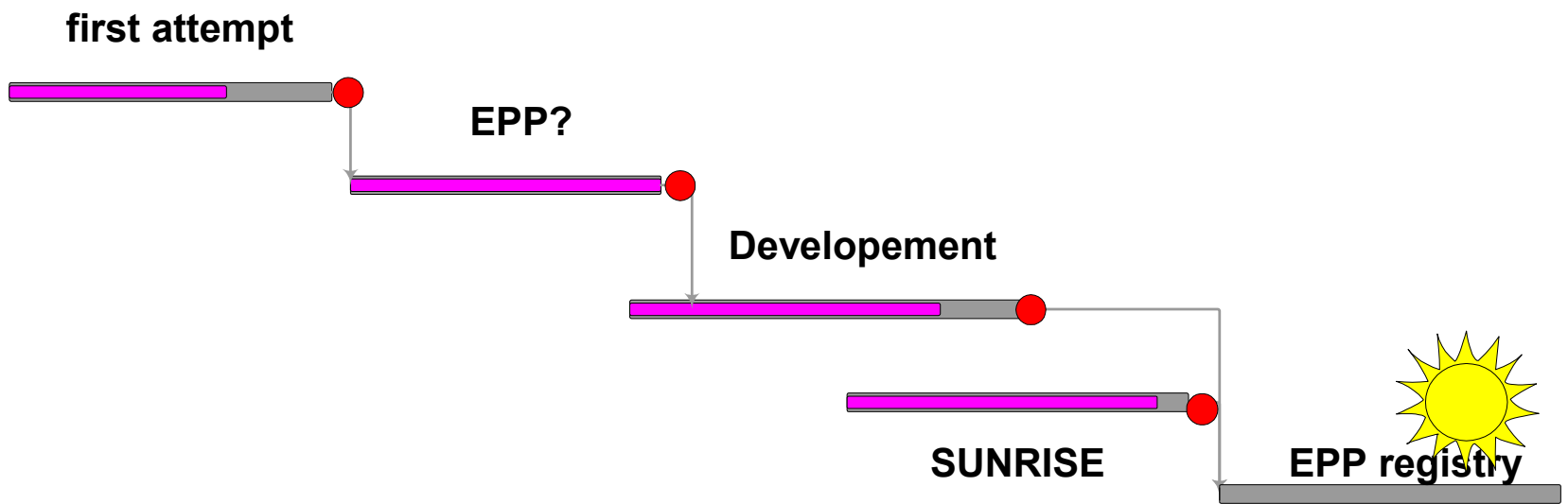
Do programu przystąpiło do tej pory pięć średnich i mniejszych firm. Wciąż nie ma pośród nich tych podmiotów, które rejestrują największą liczbę domen. Sytuacja zmieni się - być może - w drugiej połowie przyszłego miesiąca, kiedy program partnerski wejdzie w "drugą fazę" (system automatycznej rejestracji, nowa oferta rabatowa dla rejestratorów).

Na przełomie grudnia 2002 i stycznia 2003 partnerzy **NA** rejestrowali dziennie średnio ponad 3 domeny (między 0 a 10). Najlepszy dzień przypadł na sam początek programu partnerskiego, ale poza tym nie widać jeszcze żadnej tendencji w tempie i ilości rejestrowanych przez partnerów domen.

Sunrise/EPP registry – rised problems



- Discounts too low
- Too much responsibility transferred to registrars



EPP registry - conditions

No of domains	discount (%)
100	10
500	15
1 000	20
30 000	50

- NDA + agreement
- Only EPP interface
- No arrears
- Invoice one per month + 2 weeks for payment

← Sorry: I can not provide all the detailed data



EPP registry - expectations

- Increase number of registrars (20 medium-size after 3 months)
- Sign agreements with the biggest gTLD registrars (2 after 3 months)
- Add .PL to foreign registrars channels.
- ASAP Transfer as much as possible NASK's customers to the registrars



EPP

– bright side

- Easy to become registrar
- EPP as advantage
- Booking + one invoice per month
- Direct registrations more difficult in comparison to registrars
- 24x7x365 access for registrars but... semi-automatic direct registrations
- Arbitration court



web server

- Intel Pentium Xeon 2 GHz cache L2 min. 512KB, FSB 400 MHz (4 x 100 MHz)
- 1GB RAM
- PCI Ultra 160 SCSI, min. 32MB RAM cache;
- Raid 0, 1, 5, 10
- Hot-Swap, Ultra 160 SCSI, min. 10000 RPM
- 2x36GB

database server

- 2x UltraSPARC III Cpu 900Mhz,
- 8-MB External cache
- 1 GB RAM
- 2 x Ultra 160 SCSI lub FC-AL,
- min. 128 MB RAM ECC cache
- Raid 0, 1, 5
- Hot-Swap,
- Ultra 160 SCSI or FC-AL,
- min. 10000 RP
- 2 x 72 GB



Documentation

www.dns.pl/NASK-EPP%202.01.txt

Contact information in the above document



PL-EPP Example

dnr-forum; amsterdam 2003

Login 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>
  - <login>
    - <clID>test</clID>
    - <newPW>bar-FOO2</newPW>
    - <options>
      - <version>1.0</version>
      - <lang>en</lang>
    - </options>
    - <svcs>
      - <objURI>urn:ietf:params:xml:ns:host-1.0</objURI>
      - <objURI>urn:ietf:params:xml:ns:domain-1.0</objURI>
      - <objURI>urn:ietf:params:xml:ns:contact-1.0</objURI>
      - <svcExtension>
        - <extURI>urn:nask:params:xml:ns:extcon-1.0</extURI>
      - </svcExtension>
    - </svcs>
  - </login>
  - <clTRID>ABC-12345</clTRID>
- </command>
- </epp>
```

Create Contact 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>
<create>
  <contact:create xmlns:contact="urn:ietf:params:xml:ns:contact-1.0" xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
    <contact:id>sh8013</contact:id>
    <contact:postallInfo type="int">
      <contact:name>John Doe</contact:name>
      <contact:org>Example Inc.</contact:org>
      <contact:addr>
        <contact:street>123 Example Dr.</contact:street>
        <contact:street>Suite 100</contact:street>
        <contact:city>Dulles</contact:city>
        <contact:sp>VA</contact:sp>
        <contact:pc>20166-6503</contact:pc>
        <contact:cc>US</contact:cc>
      </contact:addr>
    </contact:postallInfo>
    <contact:voice x="1234">+1.7035555555</contact:voice>
    <contact:fax>+1.7035555556</contact:fax>
    <contact:email>jdoe@example.tld</contact:email>
    <contact:authInfo>
      <contact:pw>2fooBAR</contact:pw>
    </contact:authInfo>
  </contact:create>
</create>
<clTRID>ABC-12345</clTRID>
</command>
</epp>
```

Info Contact 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>
  - <contact:info xmlns:contact="urn:ietf:params:xml:ns:contact-1.0"
    xsi:schemaLocation="urn:ietf:params:xml:ns:contact-1.0 contact-1.0.xsd">
    <contact:id>sh8013</contact:id>
  </contact:info>
  </info>
  <clTRID>ABC-12345</clTRID>
</command>
</epp>
```

Create Host

```
<?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>
  - <create>
  - <host:create xmlns:host="urn:ietf:params:xml:ns:host-1.0"
    xsi:schemaLocation="urn:ietf:params:xml:ns:host-1.0 host-1.0.xsd">
    <host:name>ns1.example1.tld</host:name>
    <host:addr ip="v4">192.1.2.3</host:addr>
    <host:addr ip="v4">198.1.2.3</host:addr>
    <host:addr ip="v6">1080:0:0:8:800:200417A</host:addr>
    </host:create>
  </create>
  <cITRID>ABC-12345</cITRID>
</command>
</epp>
```

Check Domain 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>
  - <check>
  - <domain:check xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
    xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
    <domain:name>example.tld</domain:name>
    <domain:name>example2.tld</domain:name>
    <domain:name>example3.tld</domain:name>
  </domain:check>
  </check>
  <clTRID>ABC-12345</clTRID>
</command>
</epp>
```

Create Domain 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>
  - <create>
  - <domain:create xmlns:domain="urn:ietf:params:xml:ns:domain-1.0" xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0
    domain-1.0.xsd">
    <domain:name>example.tld</domain:name>
    <domain:period unit="y">2</domain:period>
    <domain:ns>ns1.example1.tld</domain:ns>
    <domain:registrant>sh8013</domain:registrant>
    <domain:contact type="admin">sh8013</domain:contact>
    <domain:contact type="tech">sh8013</domain:contact>
  - <domain:authInfo>
    <domain:pw>2fooBAR</domain:pw>
    </domain:authInfo>
  </domain:create>
  </create>
  <clTRID>ABC-12345</clTRID>
</command>
</epp>
```

Transfer Domain

```
<?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>
  <transfer op="request">
    <domain:transfer xmlns:domain="urn:ietf:params:xml:ns:domain-1.0"
      xsi:schemaLocation="urn:ietf:params:xml:ns:domain-1.0 domain-1.0.xsd">
      <domain:name>example.tld</domain:name>
      <domain:authInfo>
        <domain:pw>2fooBAR</domain:pw>
      </domain:authInfo>
    </domain:transfer>
  </transfer>
  <clTRID>ABC-12345</clTRID>
</command>
</epp>
```

Logout 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>  
  <logout />  
  <clTRID>ABC-12345</clTRID>  
</command>  
</epp>
```