Registries’ Update

APTLD Meeting in Jakarta DRAFT
8 September 2015 – Stephan Hageleit
About DENIC (1/2)

- Founded in 1996 as a cooperative
  - Not-for-profit organization
  - Government-independent, not regulated
- ~ 300 members (= registrars) worldwide
- Registration on a first come, first served base
- Registration open to non-German residents (Admin-C must have a postal address in Germany)
- DENIC Office in Frankfurt ~120 colleagues
About DENIC (2/2)

• 16.000.000 .de – Domains (since 22.08.2015)
  • ~ 639.000 IDNs
  • ~ 18.000 with DNSSEC

• ~ 2.500.000 Customer Anycast Domains
Maintenance work @ DENIC
Previously…

- Maintenance window: Every Tuesday between 4 and 8 pm
- Maintenance was announced at the latest on preceding Friday for upcoming Tuesday
- Announcements were made when
  - maintenance was started
  - maintenance experienced an unexpected delay
  - maintenance was finished

...to a separate mailing list for maintenances
Now...

max. 5 seconds
Blue / Green Deployment

- Trash it – build it new
- Staging concept
- Two production environments: one live (green stage) and one idle (blue stage)
- Data center (stage) switchover in max. 5 seconds only!
- Maintenance window reduced from max. 4 hours to max. 5 seconds 😊 (without production interruption)
Magic has a name: CID

- Continuous integration and deployment
  start of the project: Q4 - 2011

- Automation and visualization

- Release fast, release often

- Allows continuous Integration & Deployment of all applications (system packages, libraries, DENIC applications….)
Magic has a name: CID

- Huge flexibility in maintenance
- Emergency exercise within ISO 27001
- Switch of the Data Center from Frankfurt to Amsterdam (Disaster Recovery)
- Quick rollback possible (just switch green / blue and pre-rollout stage is back)
Magic has a name: CID

- Switch of the Data Center from Frankfurt to Amsterdam took 2 days,
- Preparation for several weeks
- High complexity arose some problems/errors
- High amount of colleagues was needed
Magic has a name: CID

- The switch in a few minutes (less than 30 minutes)
- A few colleagues for switching required (1 person, 1 click)
- Less complexity, maximum reduced error rate
- Data center switch with Blue/Green possible
Questions?