Telco WG

Massively Scalable IDP Architecture
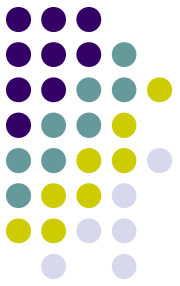
Scope: from Large to Huge

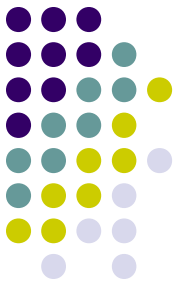| Model	Millions IDs
L	50
XL	100
XLL	500

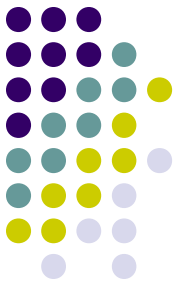Targeting 36 months time scale

Multi-everything

- Multi-devices
  - PC, Telephone, TV
- Multi-access
  - DSL, Mobile, Wifi
- Multi-services
  - WEB
  - IMS (conversational services)
  - Streaming (TV/Music)

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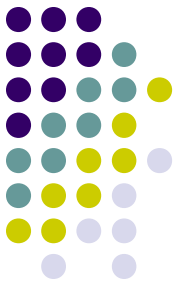INITIATIVE

Fully Distributed

- Geographical distribution
  - Latency optimization
  - Legal or Political split, share
  - Failover, load balancing
- Authentication repository (HLR/HSS)
- Personal profile (attribute retrieval)
- Outsources services
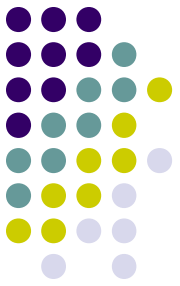
Multi-Protocols

- Authentication
  - SAML2 (full)
  - OpenID (simple)
  - InfoCard ???
- APIs/Attributes
  - Dual mode ID-WSF, OAuth
  - Ex: Presence, billing, user-profile, ...
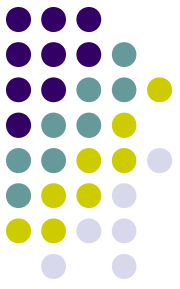
Privacy & Legal constrains

- Privacy as 1st class citizen
  - User consent
  - Right to update/forget
- Compliant with regulations
  - Audit
  - Legal interception
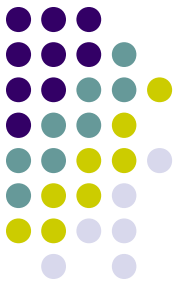 - Abnormal traffic detection (ex: HADOPI)

Think big, Start small

- Scalable with starting point of 10% of target
- Modular and composable
- Standards based
- Manageable
  - Add, remove, migrate instances/components

Virtualization & Cloud

- Virtualization how far ?
  - Ex: Network, loadbalancer ?
- Cloud
  - Integration of external services
  - Per user service (ex: mybank, mymail, …)
- Storage
  - Local / remote
  - Encrypted (what, when ?)
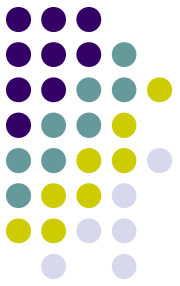
Data Distribution

- Schema simplification
  - Authentication info
  - User profile info
- Distribution of user data
  - Proxy model
  - Discovery model
- Authorization / Delegation
- Data migration
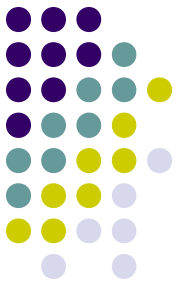
Session management

- Authentication
  - multi-context/multi-level/multi-devices
- Cross protocol/devices
  - Cookie, Phone, Email
- Idle/sleeping sessions
  - 24/24 online devices
- Global geographical distribution
  - Migration, Proxy

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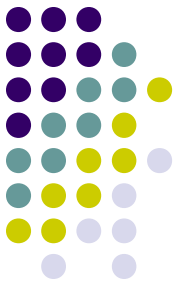INITIATIVE

Numbers / Load

- 500M users
  - 3.5M/s SQL read/second
  - 5000 SQL write/second
- 2 M new users/day
- Mobile/TV
  - +95% up/on 24/24

Telco WG target

- Architecture pattern
- Best practices
- Reference Implementation (Partial/Full)
- Certification ?

How to Help

- Provide your input
  - Constrains
  - Use cases
  - Metrics/Load
- Jump in
  - Review our work
  - Propose things