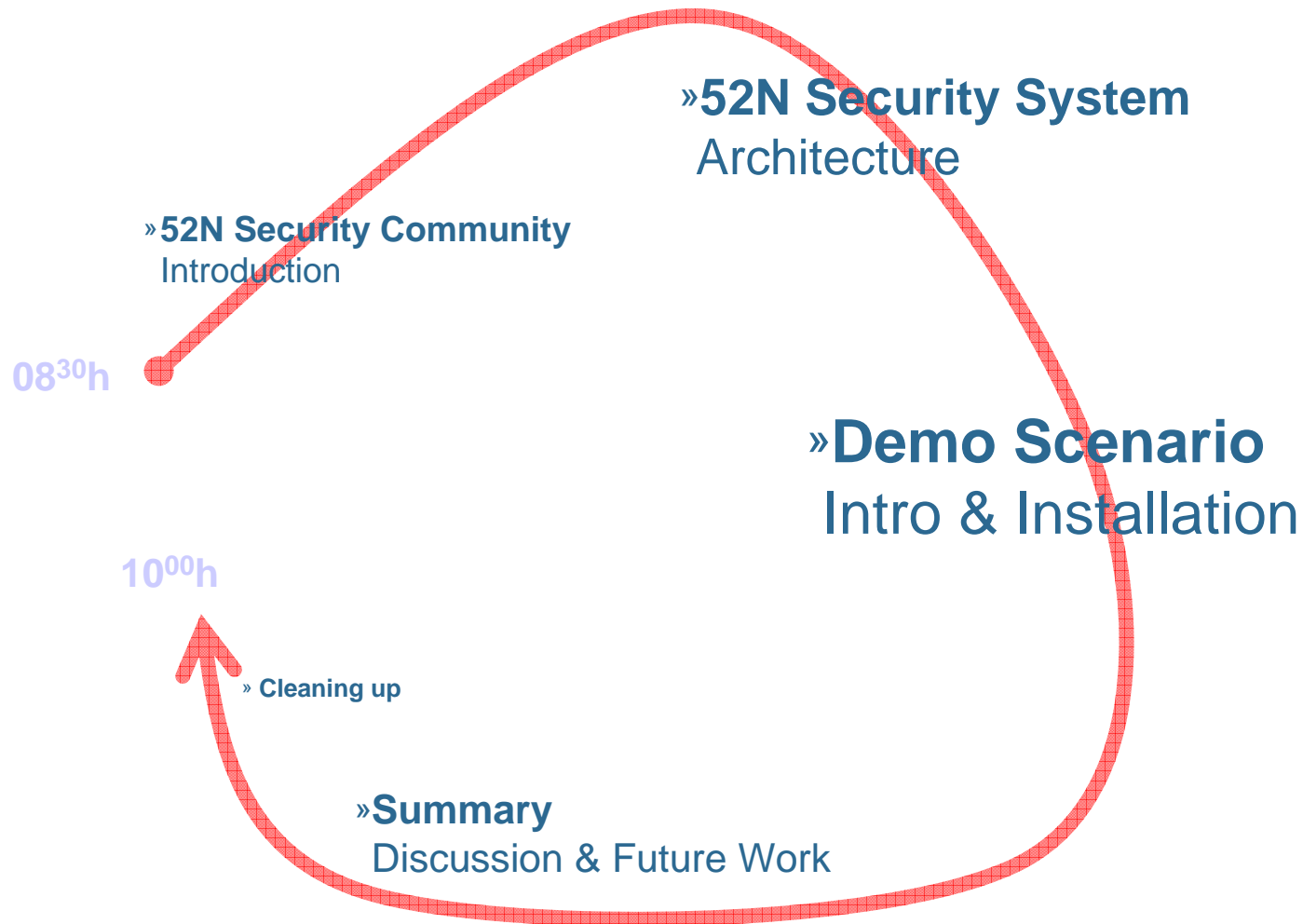


Protecting OGC Web Services with the 52°North Security System

Jan Drewnak
52North.org

Lab Roadmap



52°North

or „52-N“ or „5-2-N“ or „52-North“ or „5-2-North“

- Founded in 2004
 - Institute for Geoinformatics, Münster, Germany
 - ITC Enschede, The Netherlands
 - con terra GmbH, Münster, Germany
 - since 2006: ESRI Inc., Redlands, US
- Mission: Development of innovative components for spatial data infrastructures
 - Sensor Web Enablement | Security (Access Control)
- New working areas
 - (Geo) Processing Services | Raster Processing
- License Model: Dual Licensing (GPL 2.0 & Commercial)

52N Security Community

<http://www.52north.org/security>

- Topics

- Access Control
for Services in SDI



Alice is allowed to access all layers except <points of interest>

- License Management



Alice must agree to the terms of use before she can access the WMS

- Client Software



Alice wants to access the protected service with her favorite map client software as usual

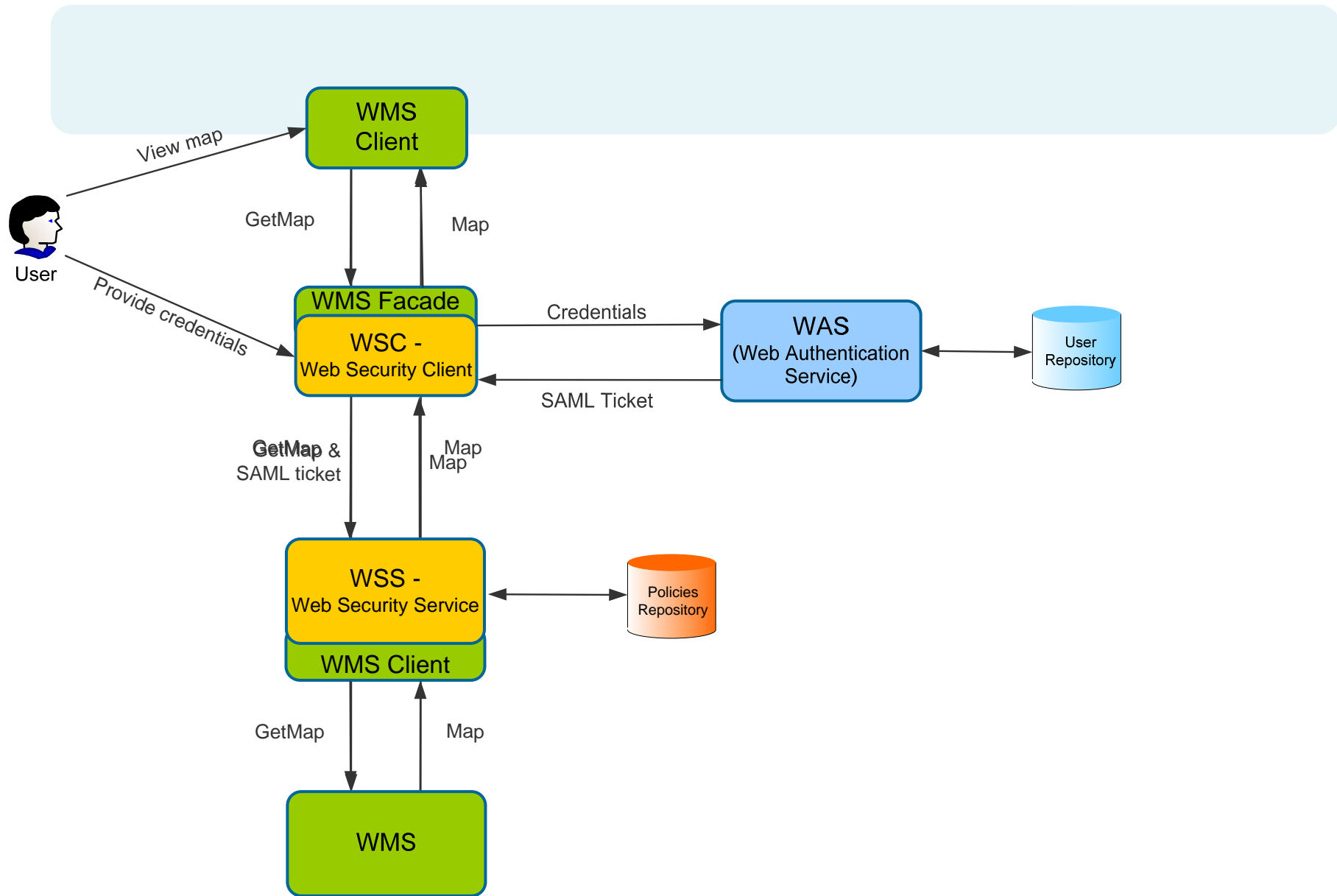
Security Architecture

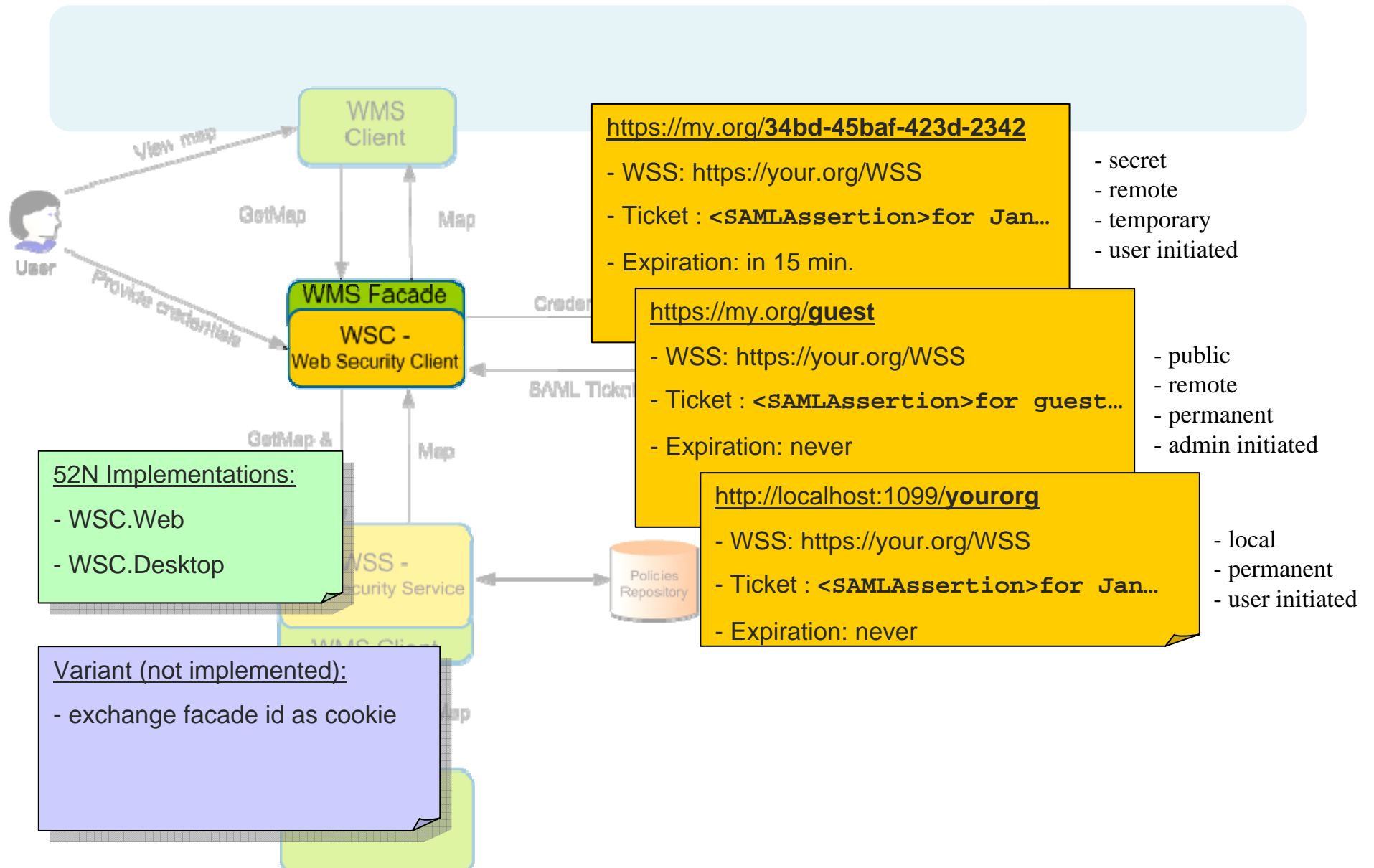
52N's current approach

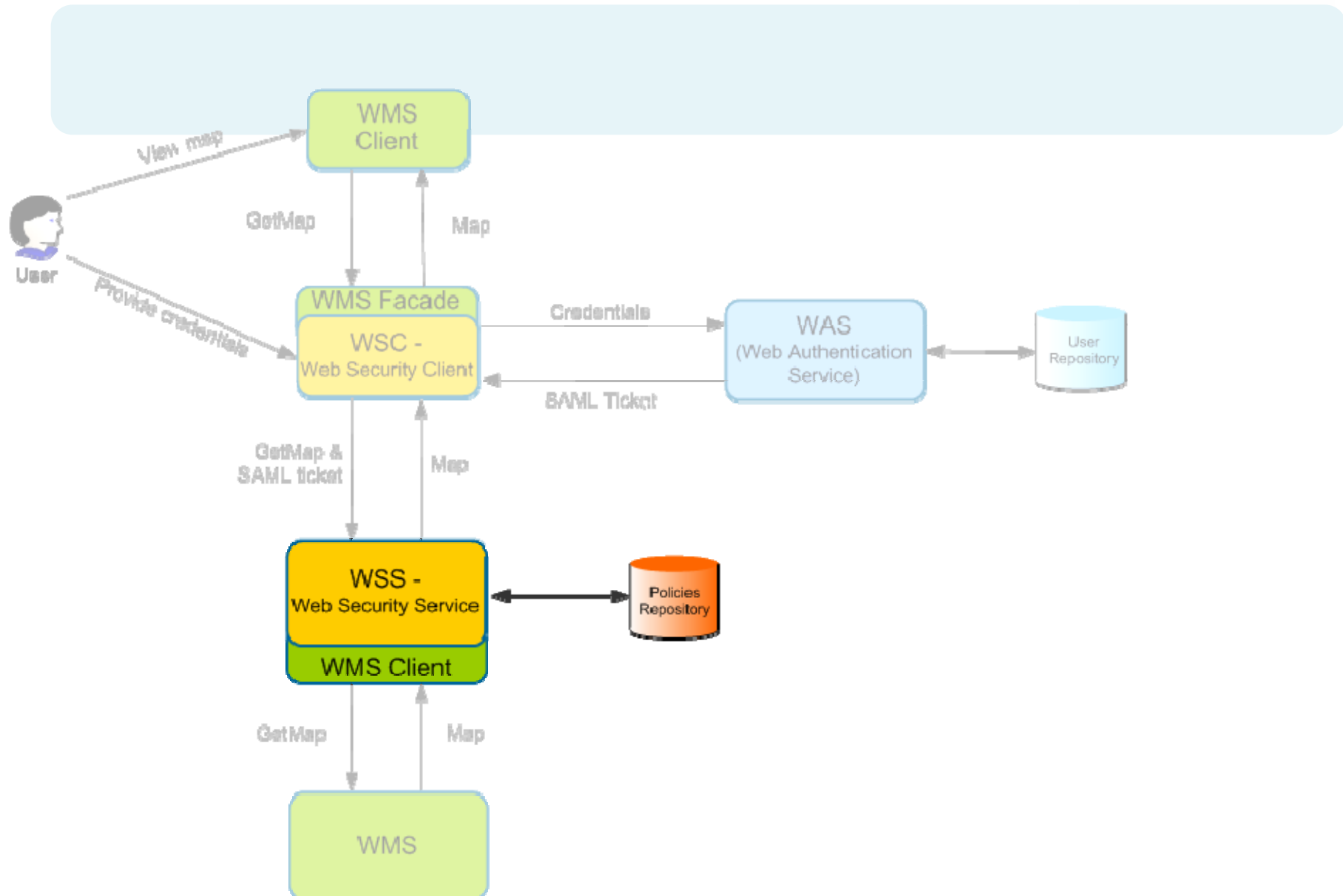
- Based on specifications of the Regional SDI in North Rhine-Westphalia (since 1999)
- First developments in the security area 2001
- Goals of the development
 - Access control for OGC Web Services (authentication and authorization)
 - Security solution that integrates seamlessly into existing infrastructure, that means:
 - Existing service specifications, and thus implementations, need not to be changed
 - Consider current security specifications of general IT

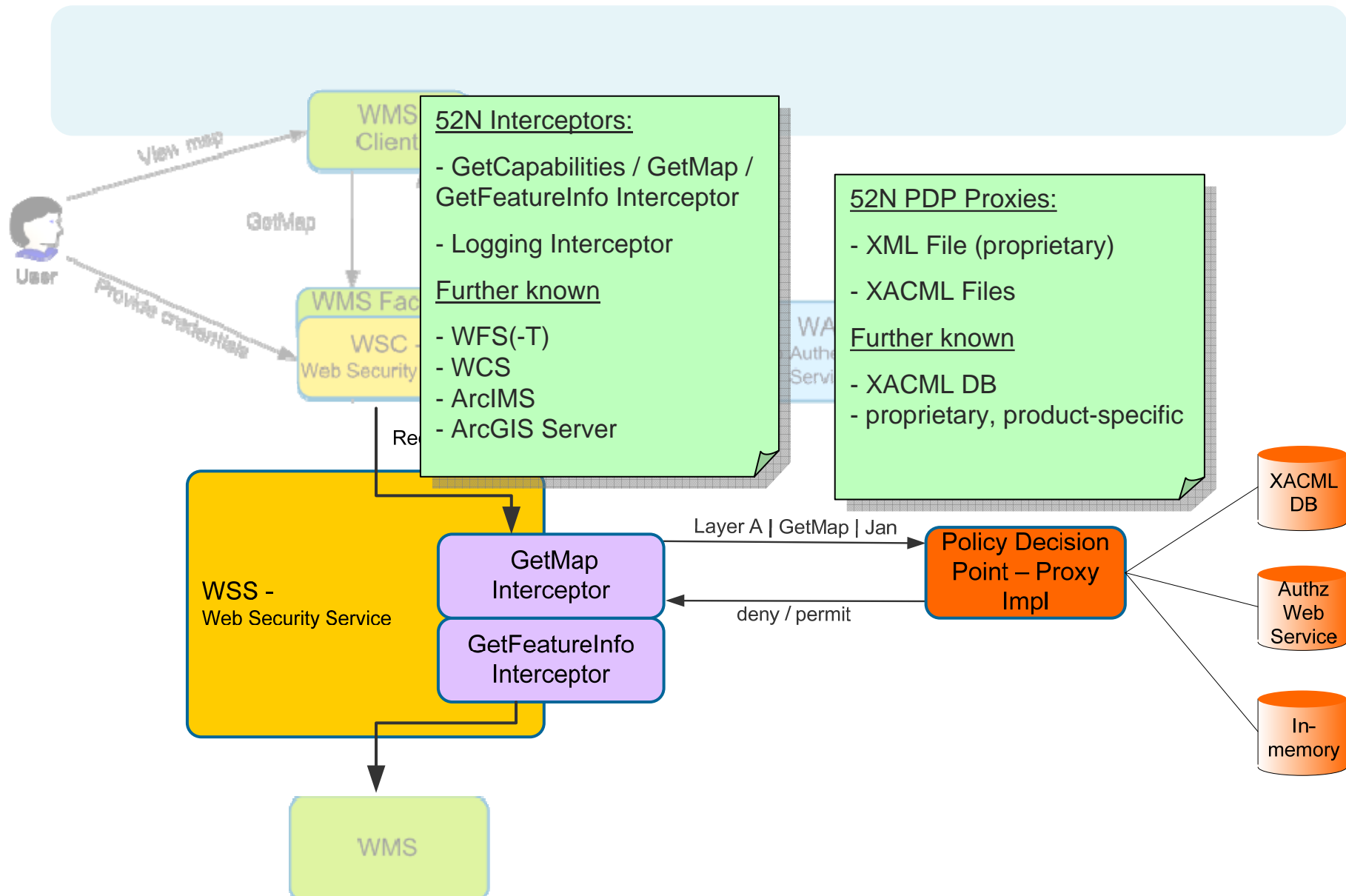
52N's current approach

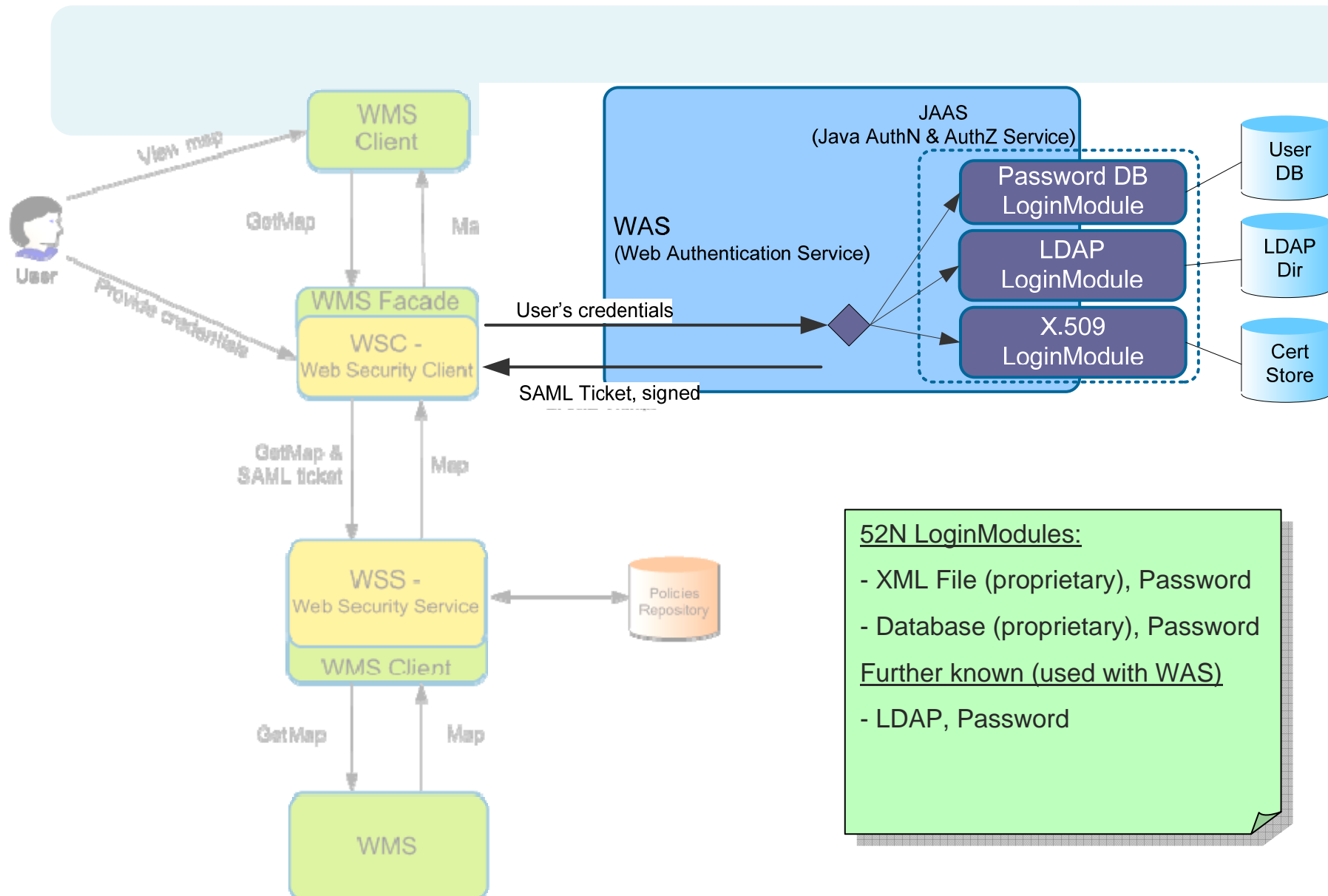
- Result: 2 service specifications
 - Web Authentication Service (WAS)
 - Authenticates users by means of arbitrary authentication methods
 - Issues SAML tickets
 - Web Security Service (WSS)
 - Gateway to protected OGC Web Services
 - Processes SAML tickets
 - Forwards service requests according to the user's permissions
- Introduced to the OGC









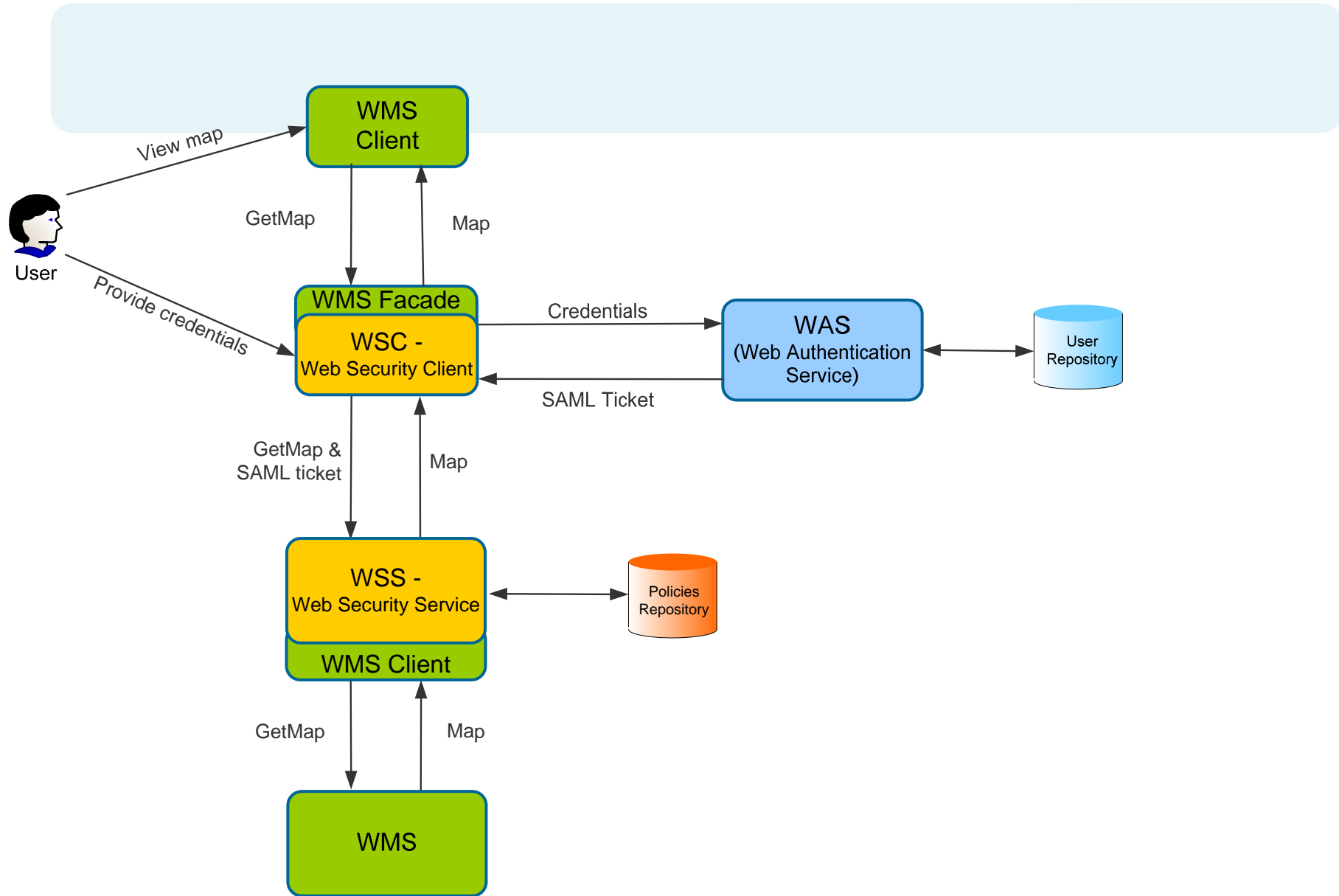


52N LoginModules:

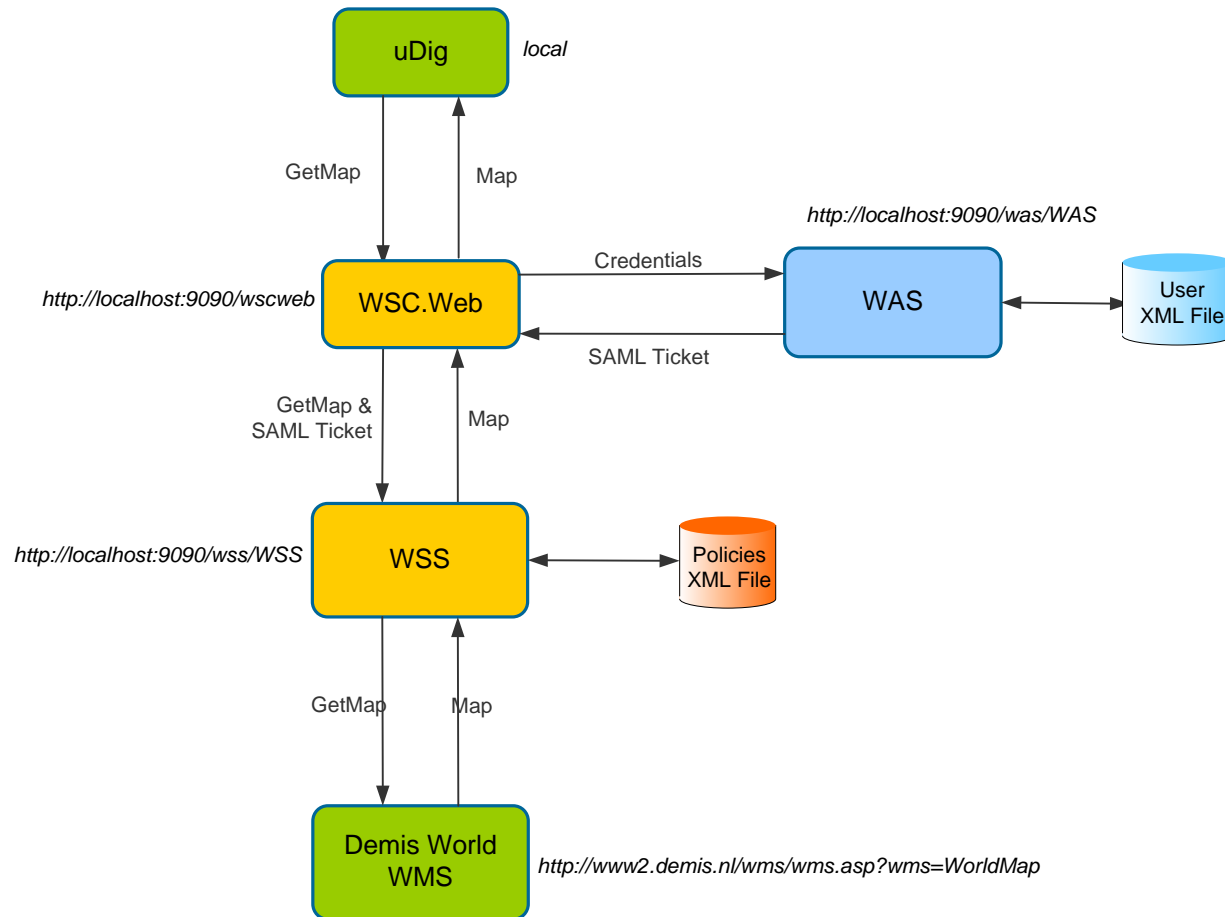
- XML File (proprietary), Password
- Database (proprietary), Password

Further known (used with WAS)

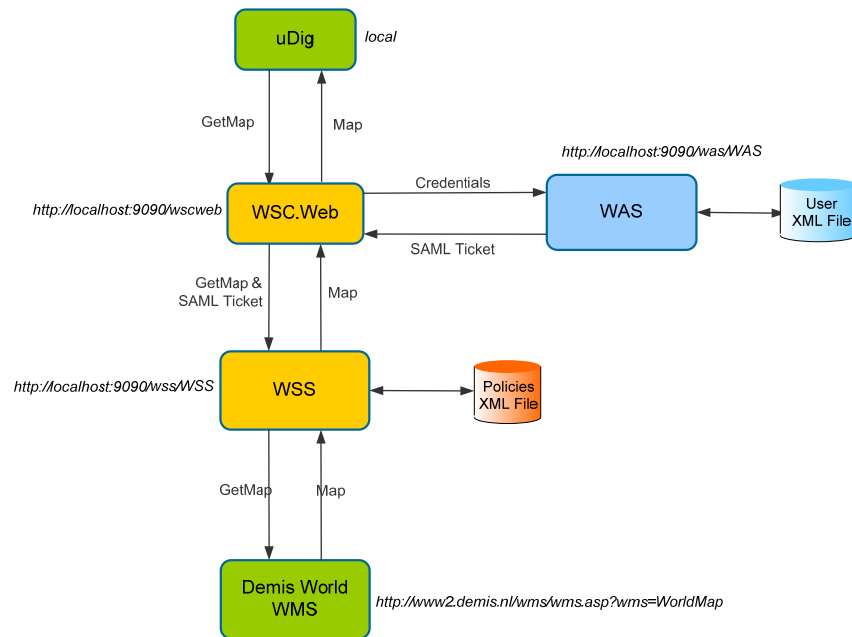
- LDAP, Password



Demo Scenario



Demo Scenario



www.52north.org/security

Security Community

- 📄 About
- 📄 Mission
- 📄 Roadmap
- 📄 News

Sub-Projects

- 📄 Security Applications
 - 📄 WAS
 - 📄 WSS
 - 📄 WSC.Web
 - 📄 LicMan
- 📄 Security API
 - 📄 1.2 (stable)
 - 📄 2.0 (development)

Resources

- 📄 Bugzilla
- 📄 Mailing Lists
- 📄 Sources
- 📄 Wiki
- 📄 Schemas

Fxtras

- 📄 Tutorials
 - 📄 FOSS4G 2007 Tutorial

52n Projects

- 📄 Security

Future Work

Beyond the daily maintenance work...

- Switch to SOAP based interfaces
 - based on OGC OWS testbed results)
 - => OASIS Web Services-Security compliant
- Release dedicated PDP XACML service
- Redesign WSC.Desktop

Enjoy FOSS4G!

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