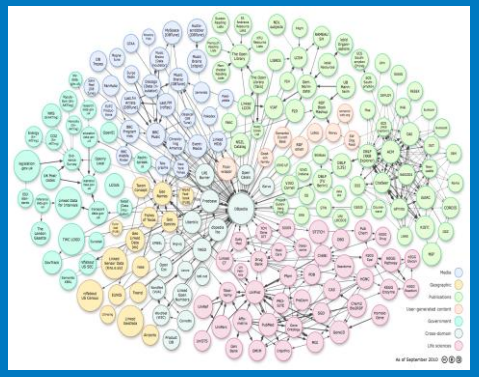
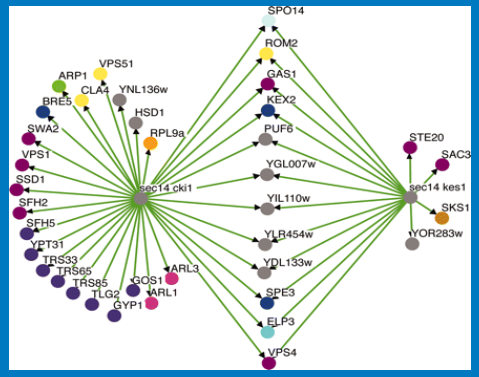
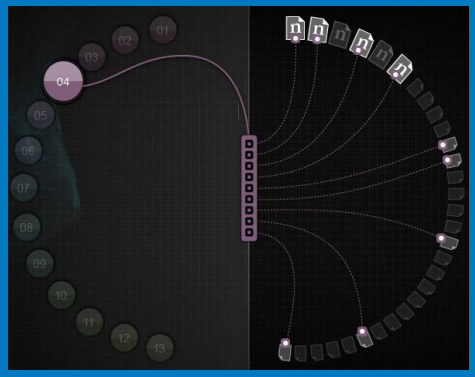
nationalgrid

Brunel UNIVERSITY LONDON

A web service for model management







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CIM Users Group

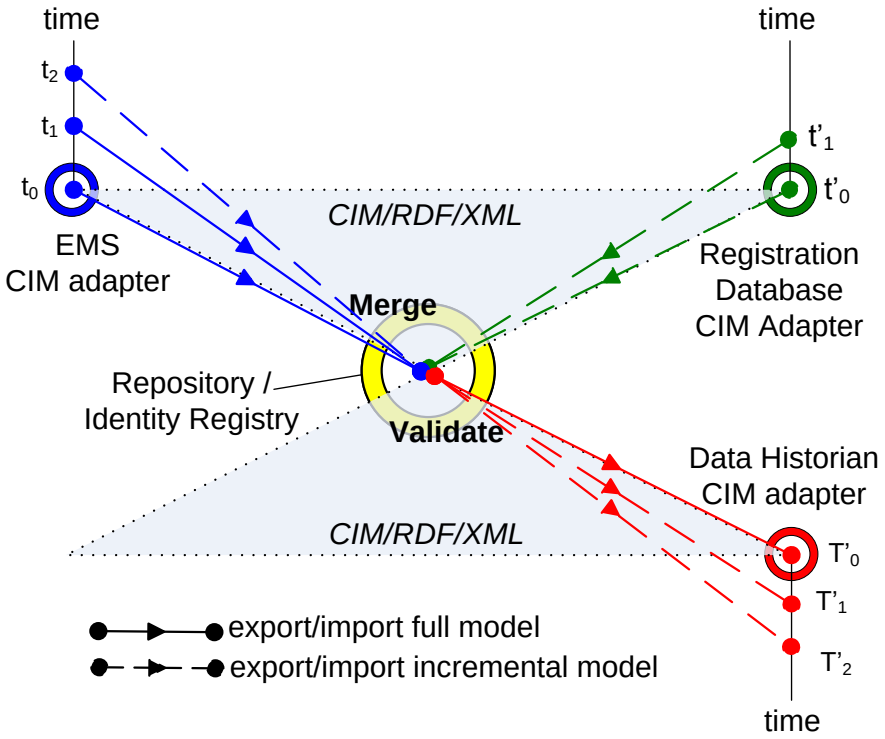
24th October 2012, New Orleans

Overview

- Use case definition
- Current utility experience
- Improvements by some TSOs
- National Grid solution
- Summary
- Future tool requirements

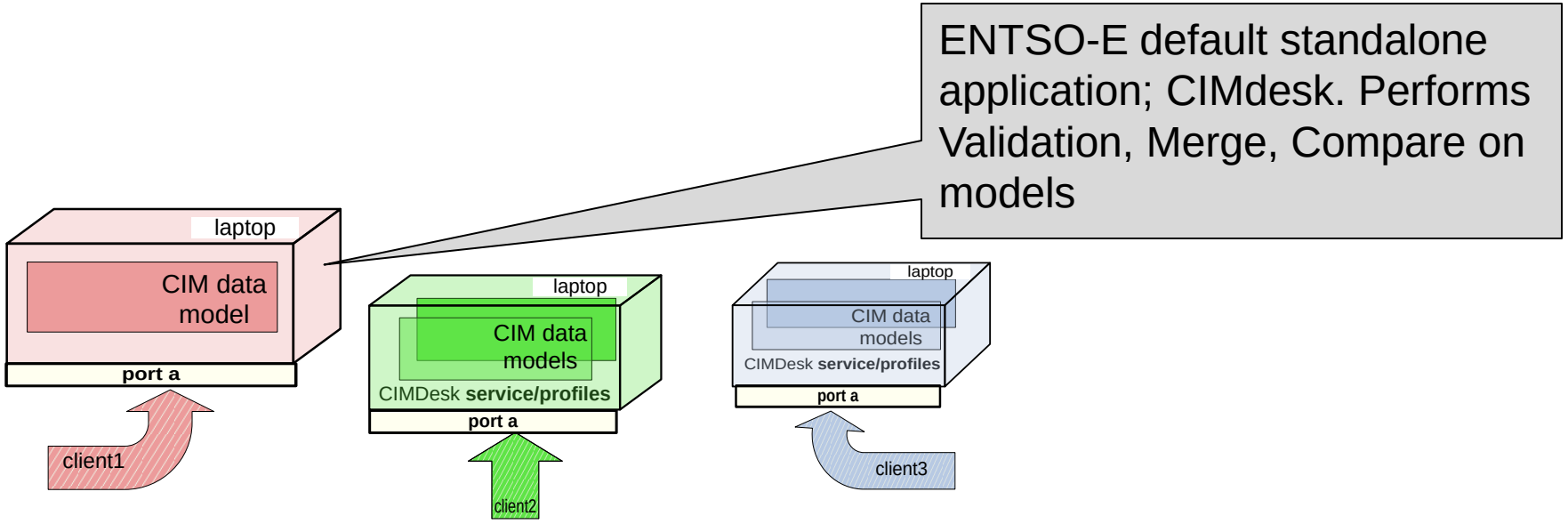
Use case definition

- Multi-party requirement to validate, compare, merge and edit CIM XML data models
- National Grid EMS and RDB model merge and validate for DH



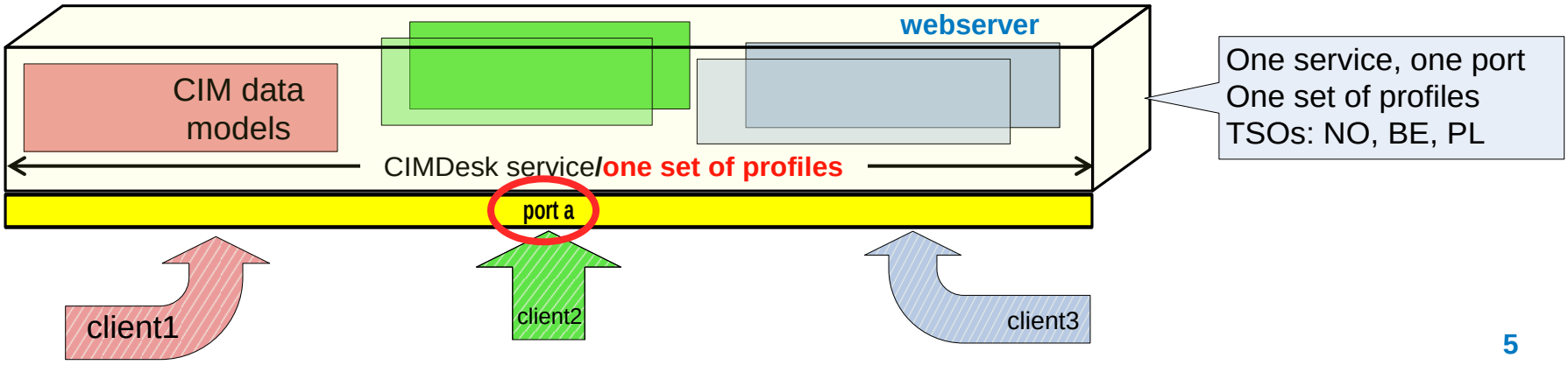
Current utility experience

- Standalone applications promote diverse versions of models (and profiles)
- This can give rise to confusion when it comes to tasks such as validation - especially when there are extensions



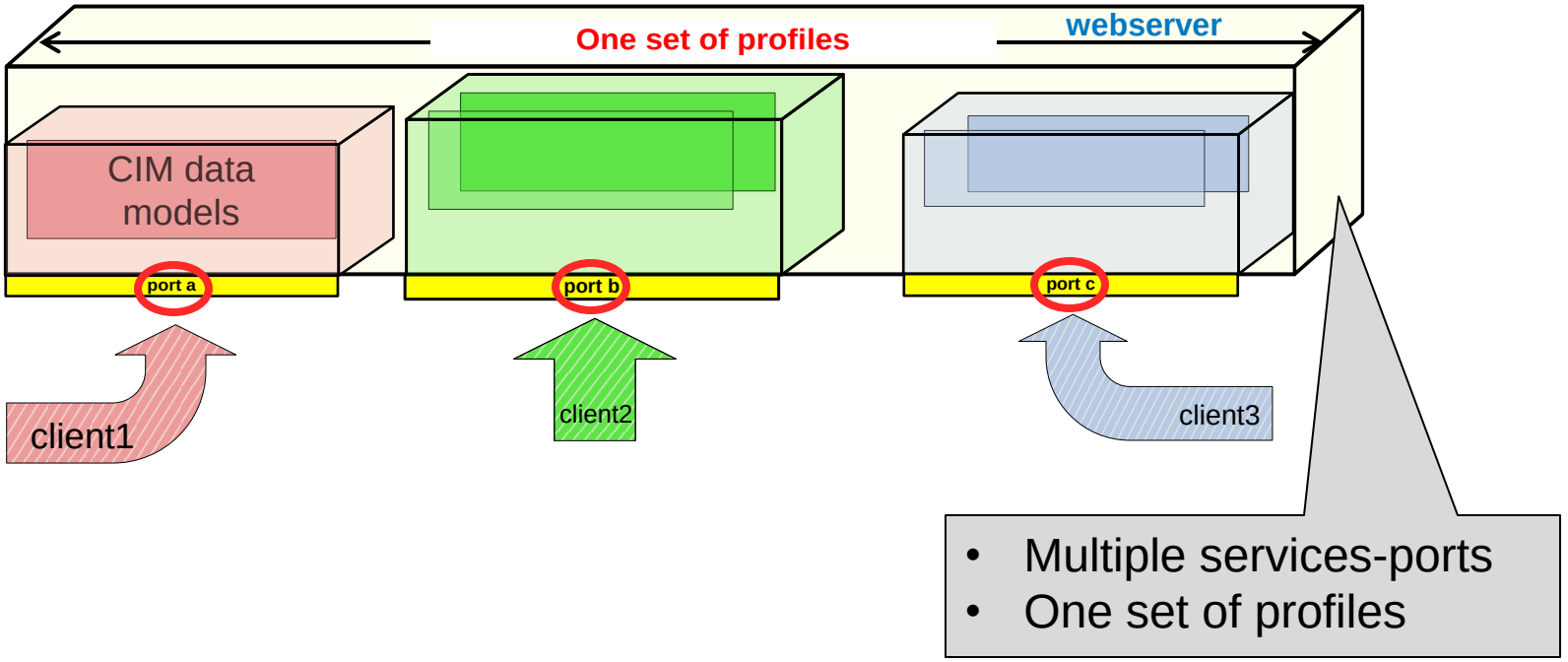
Improvements by some TSOs

- CIMdesk server shared by multiple clients
- Centralised profile management – only one profile set available
- Risk of losing work if CIMdesk server is switched off by **any** user – loss of service to **all** users, because running only one service!
- All users see what the other users are doing
- Prone to crashing (2Gb process memory limit from 32 bit architecture)



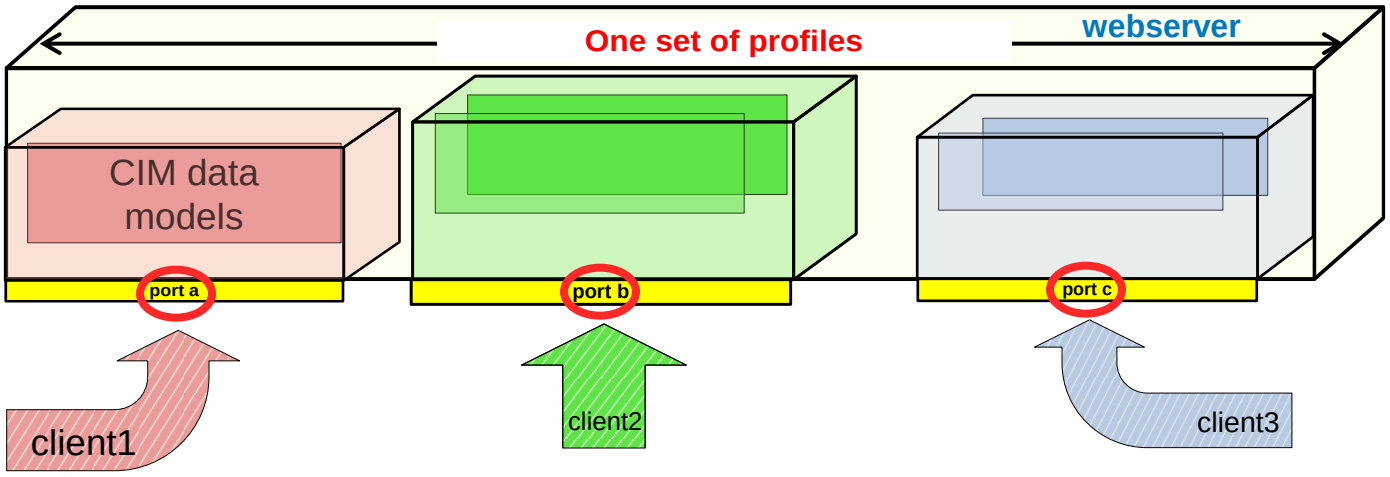
National Grid, proposed solution

- Multiple CIMdesk service-users

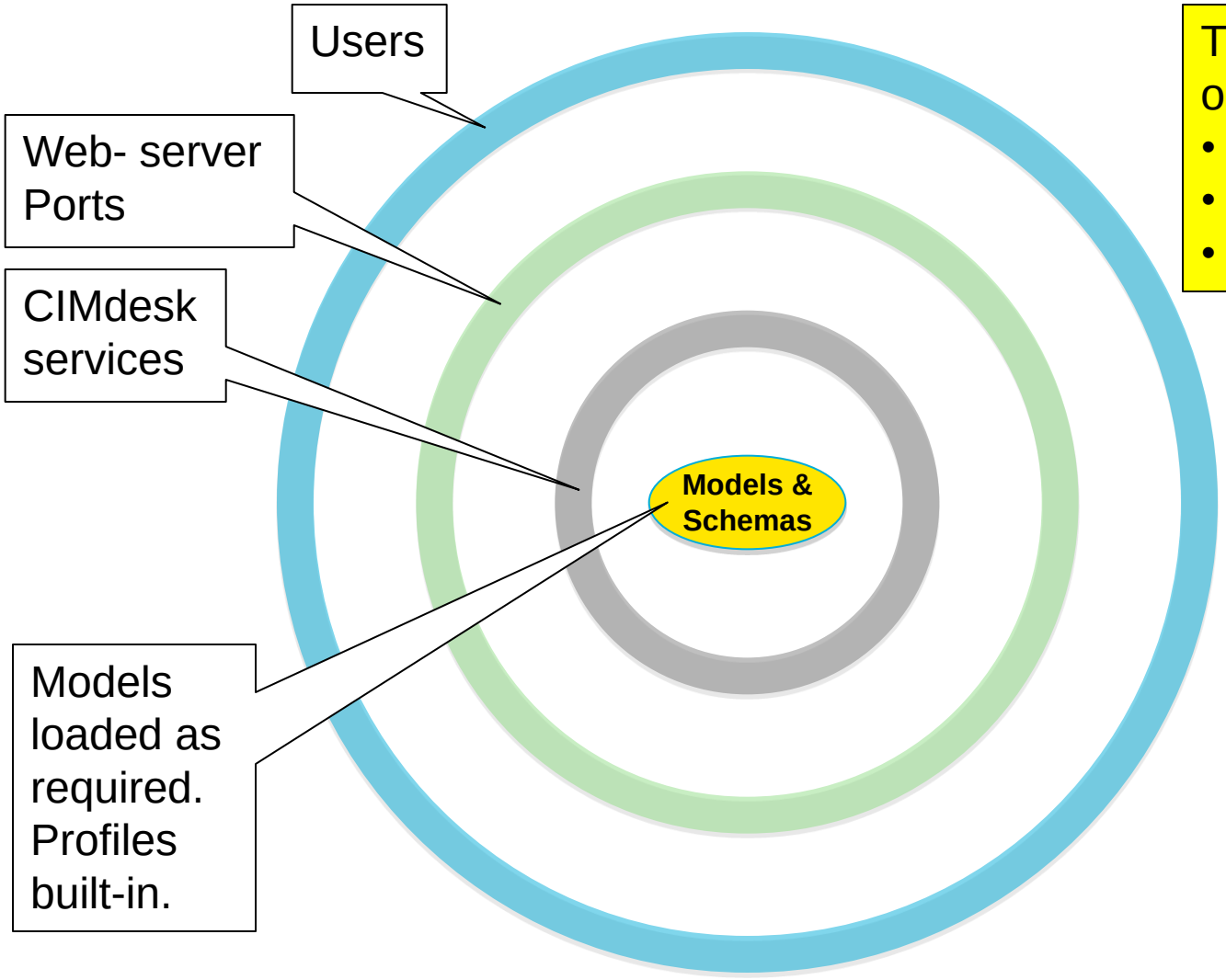


National Grid solution - advantages

- More stable – memory allocation per user is greater
- Centralised profile management possible – unifies validation standards
- Reduced risk of losing work if CIMdesk service switched off
- Team privacy is assured
- Centralised profile management – only one profile set available



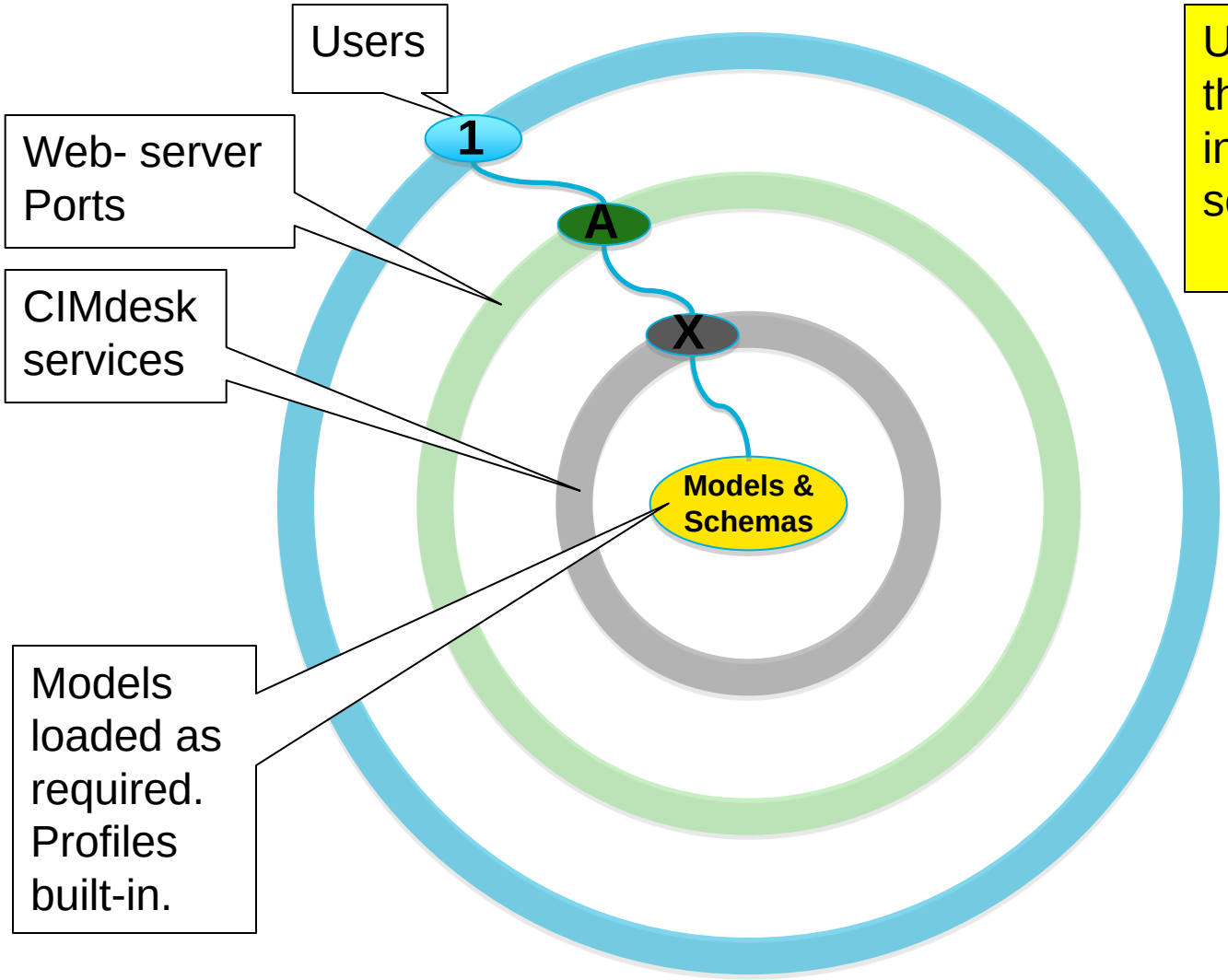
Summary



Three levels of operation:

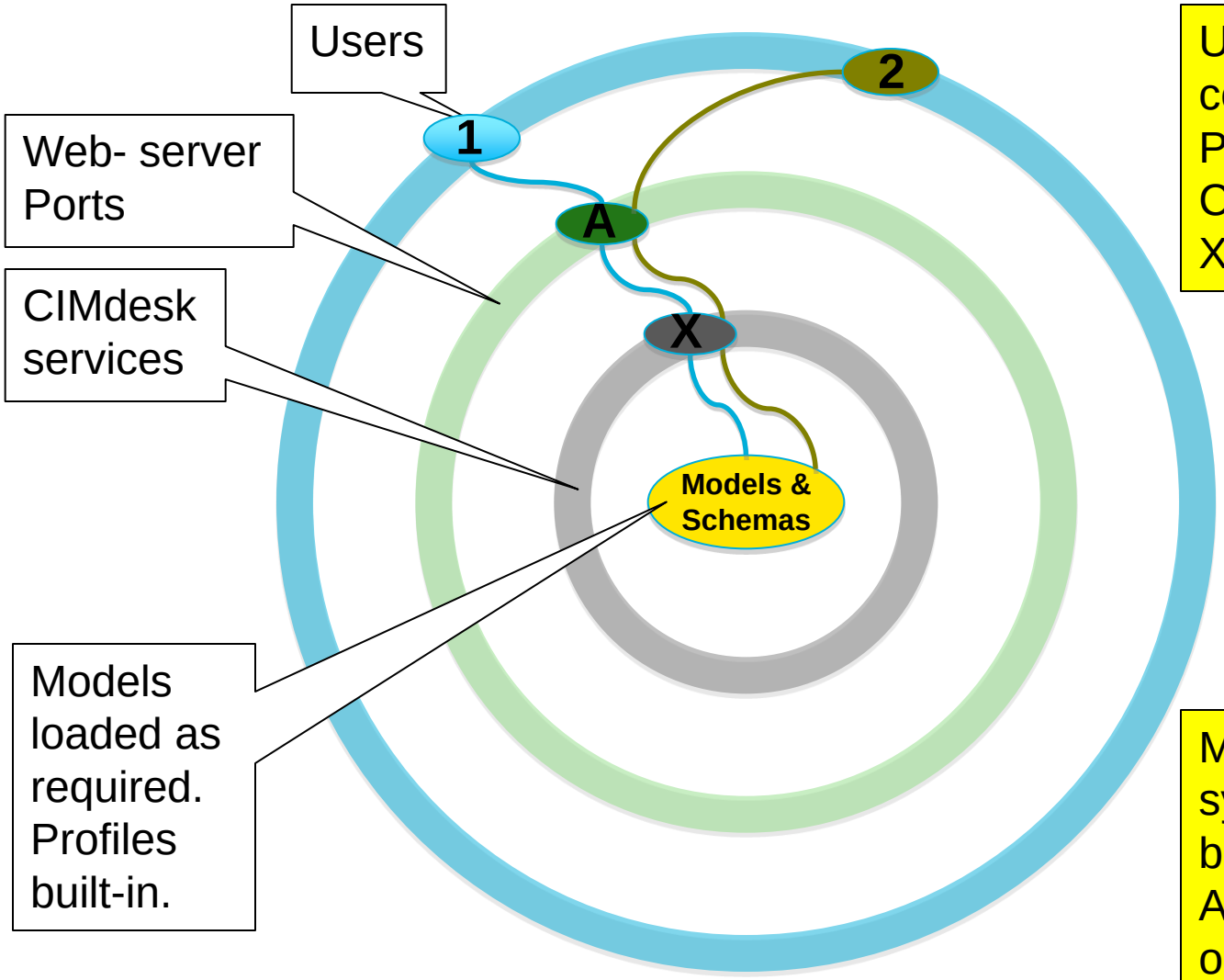
- Users
- Ports
- CIMDesk app

Summary



User 1 connects through Port A, initiates CIMdesk service X

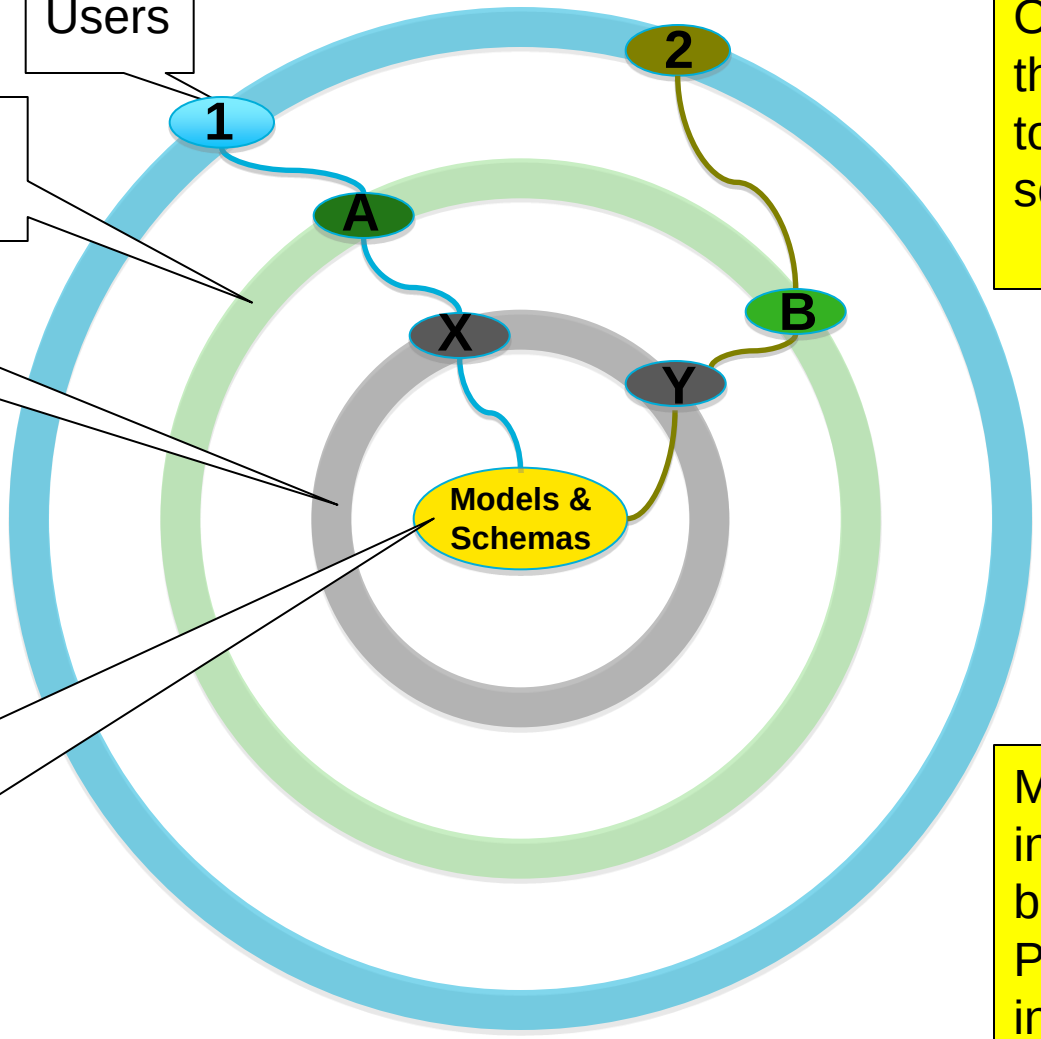
Summary



User 2 can connect through Port A, to share CIMdesk service X as well

Model changes synchronised for both Users. Port A must remain open.

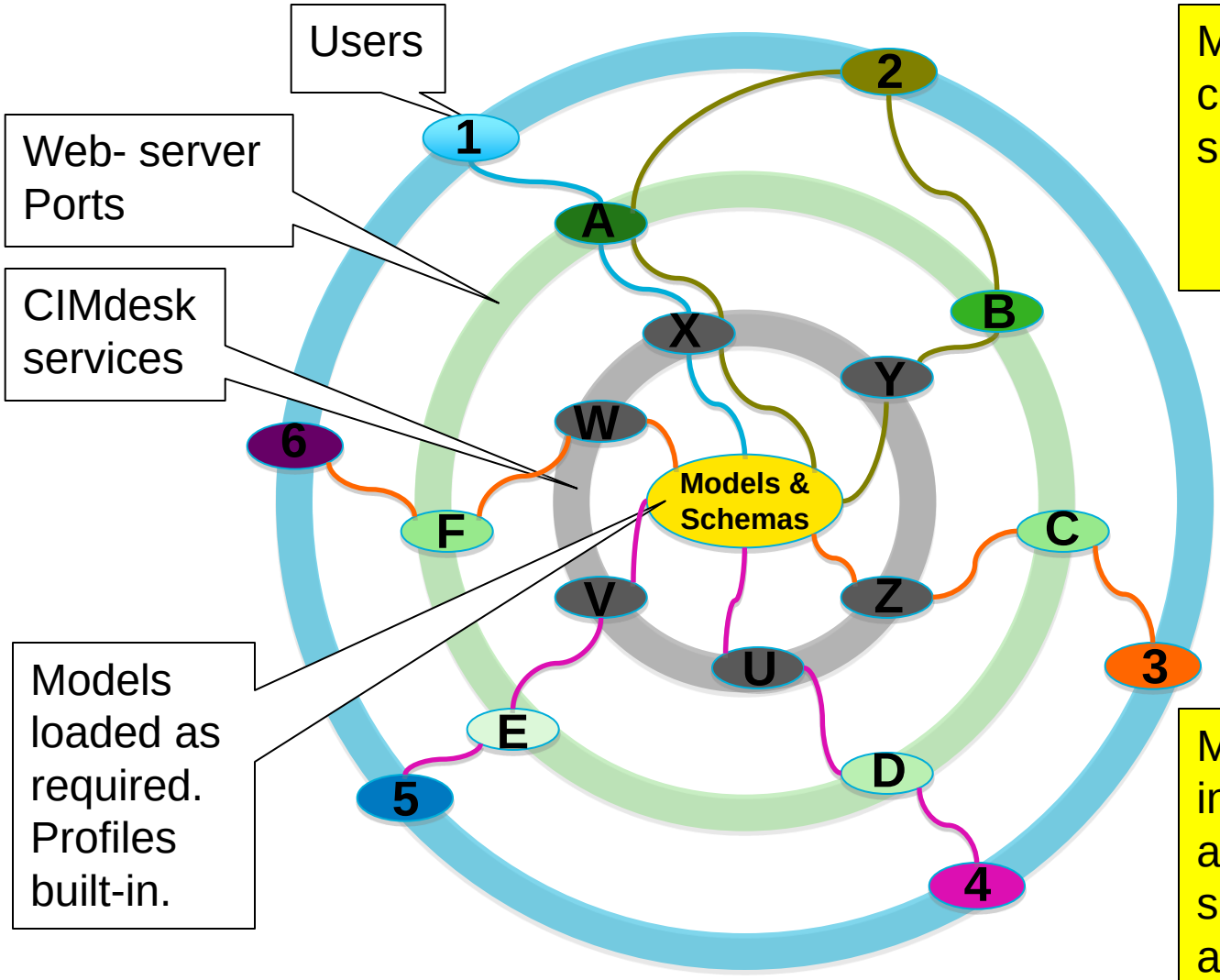
Summary



Or can connect through Port B, to start CIMdesk service Y

Model changes independent for both Users. Ports also independent.

Summary



More Users can connect in a similar way

Model changes independent for all Users (as shown). Profiles are shared.

Enterprise CIM tool requirements

- Coordination of shared data model and schema/profile changes
- User management capabilities – credentials, memory allocation
- Repository database management – identity registry
- 64bit code to allow application to handle larger models
- Virtualisation – deployment to the cloud (for example)
- GIS integration – model display output
- Situational awareness – Business Intelligence & Analytics

Thank you

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