



A Community Source Student System

A Community Source Student Services System

Vancouver Workshop

October 26 to 29

2006

A brief history of student systems

- BC
 - paper based processes
 - separate departments
 - the customer had to help us run the institution
- SRS
 - on-line records, flat files,
- SIS
 - support for core processes
 - often more work for other users
 - we began to help the customer

The SSS vision

1. person-centric
2. handle all types of learning
3. modular
4. easy to change business processes
5. community and open source development

a next generation system

Vision 1: person-centric

- encourage users to develop plans and goals
- use what we know
- anticipate people's needs
- offer valid choices
- apply rules *when appropriate*
- integrate processes
- make tasks simpler and easier

support all end users: students, faculty and staff

Vision 2: handle all types of learning

- support all types of learning
 - including non-credit and non traditional
- flexible time frames
- usable in all institutions and types of program
 - 2 year colleges and post-doctoral/research
- international
 - easily handle different languages and conventions

minimize or eliminate built in constraints

Vision 3: modular

- institutions can build modules that will work together
- modules can be integrated with existing systems
- open source and commercial modules can be combined
- a critical mass of modules will deliver a next generation system

deploy what you need, when you need it

Vision 4: easy to change processes

- portal for user interface
 - standards based
 - flexible and powerful
- use workflow and rules engines
 - cross departmental and system boundaries
 - encourage and support innovation and change
 - it's OK to customize.....
- combine SSS and other modules

your practices, not someone else's "best practices"

Vision 5: community and open source

- Community source development
 - institutions share their resources
 - agreement on standards, schemas and interface definitions
- Open source
 - complete open source reference infrastructure
 - portal
 - identity
 - workflow
 - rules
 - application and web servers, DBMS

welcome vendors, without vendor lock-in

Mellon funded planning study

- Goals
 - level of interest in an open source SSS?
 - need for an open source SSS?
 - any existing applications to use as a base?
- Participants
 - University of Indiana, Georgetown University, San Joaquin Delta College, UBC, consultants and others
- Consultation
 - meetings at JA-SIG and Sakai conferences
 - SOA workshop in Vancouver
 - focus groups at AACRAO
 - consultation with vendors

The need is there

- add functionality to existing systems

Delaware:

- housing
- dining
- course approval
- judicial referral
- course & faculty evaluation
- advising notes

Indiana

- course trading

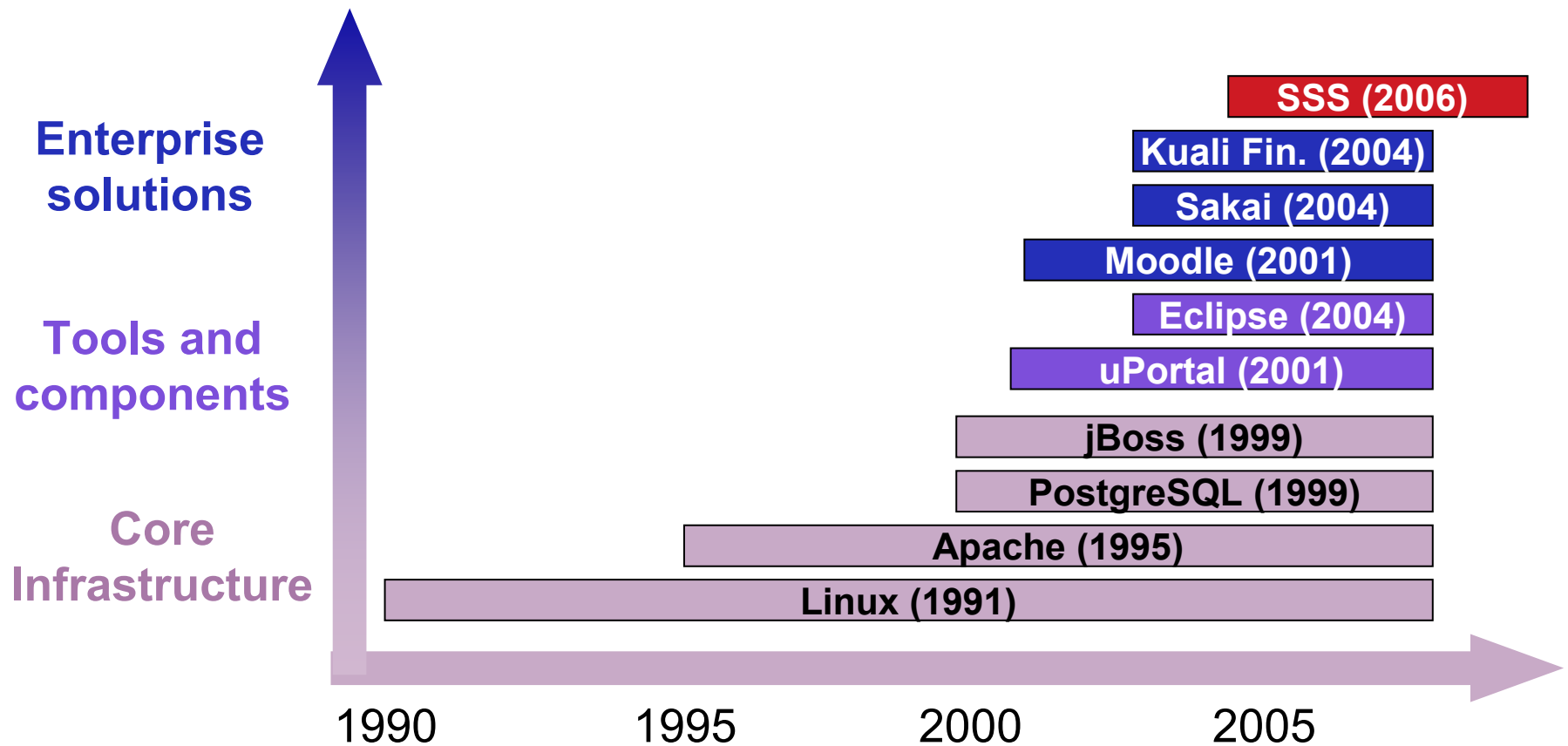
build a next generation system

Why a next generation SSS is possible

- complete open source software stack
- community source development
- new entity models
- service oriented architecture (SOA)
 - Internet and Web services
 - new technologies and standards
 - identity management, rules engines, workflow
 - XML, SOAP, WSDL
 - modular design

a new vision for service to students and others

The record of open source



The benefits of community source

- Sharing
 - more resources on each project
- Functionality
 - direct input into functions and features
- Future path
 - community can ensure sustained development
- Innovation
 - institutions innovate and share
 - commercial partners are encouraged
- Support
 - commercial installation and support is encouraged

Entity models

Must support all people, activities & resources

- Learning units
 - course
 - single lecture in a course
 - 15 minute student presentation in a course
 - participation in community service
 - any activity that the student wants to include on a formal or co-curricular transcript
- a “learning unit number” is like a SKU
- also: people, learning results, learning plans...

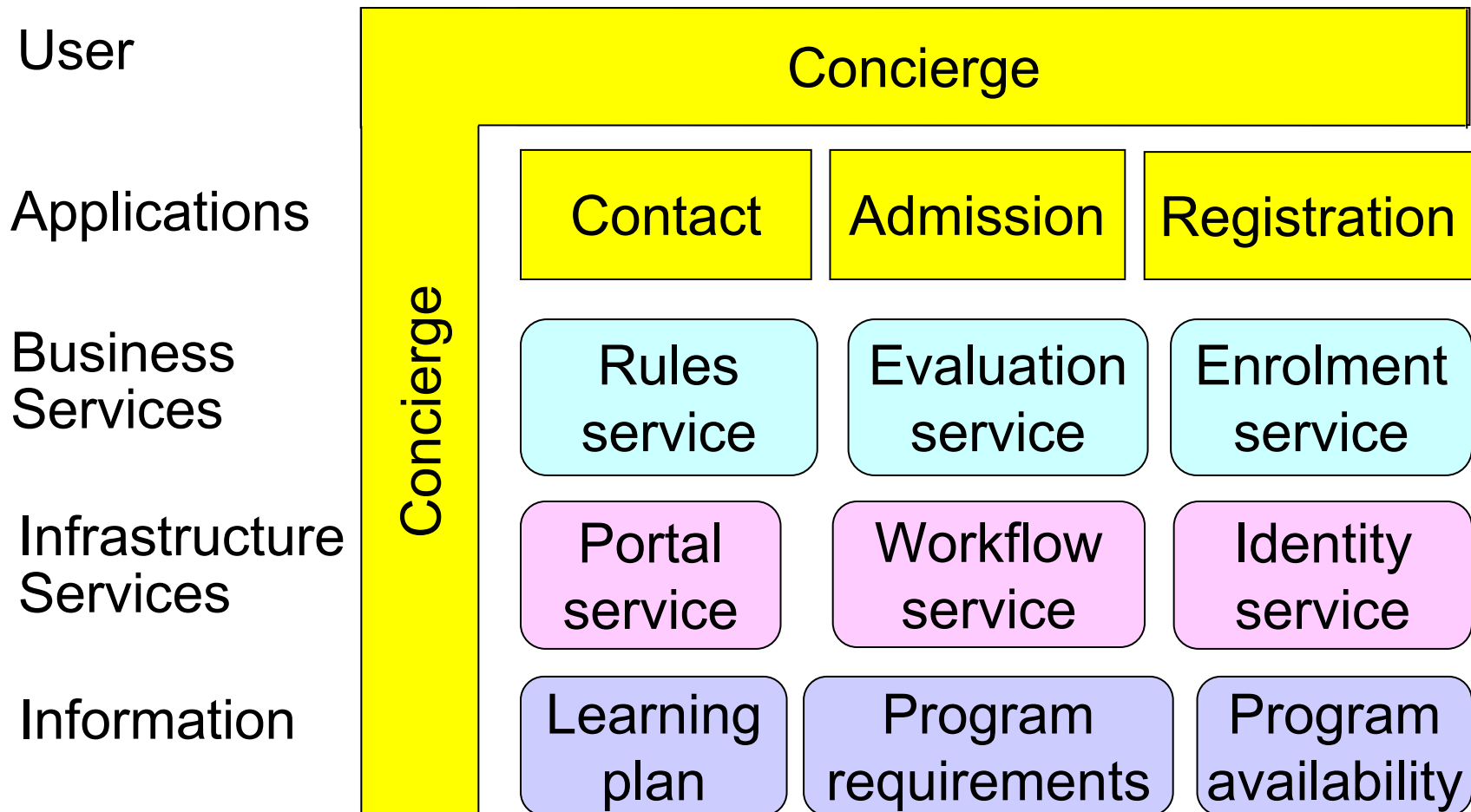
don't constrain what institutions can do

The promise of SOA

- break business processes down into:
 - process or control logic (orchestration service layer)
 - business logic (business service layer)
 - infrastructure functions (application service layer)
- use standard data models and XML schemas
- build agnostic, reusable “services” to provide the business logic and application functions
- use rules engines for the internal logic
- use workflow for the process logic
- loosely couple components

agility - make process change easier!

System architecture



CS SSS challenges and opportunities

- Community source development
- Open source applications
- New, agreed entity models, standards and schemas
- True service analysis and orientation
- Common reference architecture
- Combining modules developed at different schools
- Combining open source and commercial components
- Using commercial service providers to implement and support systems and system components

New, user focused, business processes

Workshop goals

- Review the proposed SSS applications
- Expand our knowledge of service oriented analysis
- Improve our understanding of:
 - scope of the SSS project
 - project priorities
 - effort required
 - next steps
- Continue to:
 - develop the vision
 - build the SSS community

Thank you