

A Bedework Overview: Past, Present, and Future

Arlen Johnson, Mike Douglass, Gary Schwartz
Communications & Middleware Technologies
Rensselaer Polytechnic Institute

March 8, 2010



calendar
bedework

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Who We Are

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Communications & Middleware Technologies
Division of the Chief Information Officer
Rensselaer Polytechnic Institute



Rensselaer

•CIO

Tell 'em what you're gonna tell 'em

- Bedework background
- Bedework the product
- Bedework the project
- Q&A

Bedework Background

They Say It's Your Birthday

- March 2010 marks the 4th anniversary of Bedework 3.0, the first Bedework release.



Who's Using Bedework?

- **In production**
 - Bennington College (US)
 - Bishop's University (Canada)
 - Brown University (US)
 - Cornell University (US)
 - Cornerstone University (US)
 - Dalhousie University (Canada)
 - Duke University (US)
 - Illinois State University (US)
 - Jahia Software (Switzerland)
 - Juilliard (US)
 - Montana State University (US)
 - Public University of Navarra (Spain)
 - Queens University (Canada)
 - Rensselaer Polytechnic Institute (US)
 - University of British Columbia (Canada)
- **In production**
 - University of Chicago (US)
 - University of Kansas (US)
 - University of Maine, Fort Kent (US)
 - University of Maryland, College Park (US)
 - University of North Carolina at Chapel Hill (US)
 - University of Washington (US)
 - Yale University (US)
- **Many more, both commercial and educational in both production and development**

What Is Bedework?

- **Bedework is a standards-compliant, open source, comprehensive calendaring and events system.**

Total Calendaring System?

- A “Total Calendaring System” must meet all the following needs and more:
 - personal / group / public events calendaring
 - interoperable calendaring
 - shared calendars
 - scheduling
 - events publication / event submission
 - subscriptions / event pool
 - multi-language support / internationalization
 - structured venues / contacts, sponsors / etc.
 - much, much, more ...
- Priorities driven by **standards requirements** & **user feedback**

A Calendar System for Higher Ed

- Low “buy-in” cost
 - Integrates with extant campus directories
 - Integrates with extant campus authentication
 - No license or usage fees
 - Works with a number of database systems
 - Distributed administration
 - Easily skinned

Interoperability is a core value!

- **Bedework's preoccupation with standards and interoperability is in large part recognition that in many organizations, Bedework is unlikely to be the only calendaring product in an enterprise.**
- The ability to share and exchange data with other calendaring products and environments is an important key to Bedework's future well-being as a product and a project.

Like the Beatles said

- And, in the end, the love you take
Is equal to the love you make
- **Active participation** in CalConnect
 - Chair FREEBUSY Technical Committee
 - Chair Timezone Technical Committee
 - iSchedule, CalDAV Technical Committees
 - Publicity Committee
 - Steering Committee
 - Board of Directors

CalConnect

- CalConnect - The Calendaring and Scheduling Consortium: <http://www.calconnect.org>
- “The Consortium is focused on the interoperable exchange of calendaring and scheduling information between dissimilar programs, platforms, and technologies.”
- Membership consists of industry leaders and a large number of universities
 - <http://www.calconnect.org/mbrlist.shtml>
- **Interoperability testing!**

CalConnect Members



Carnegie Mellon



Dartmouth



eventful



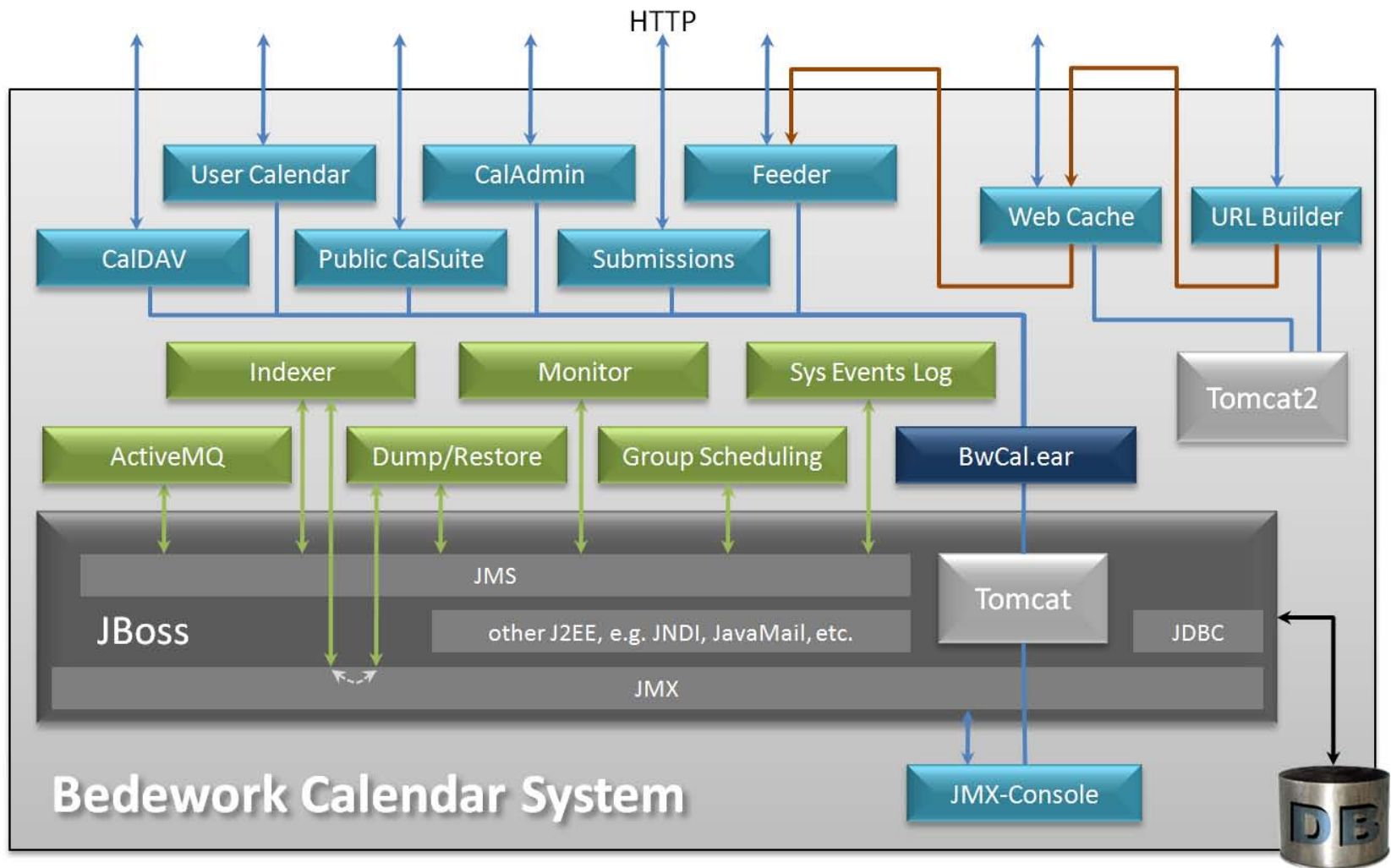
Bedework Vision

- **Enlightened self interest**
 - Deliver value locally – but develop for global community
 - Make Bedework attractive enough to other universities that they adopt the software and contribute to its development.
- **Make Bedework the leading open source Java-based calendar in higher education**
 - Continue to grow the user community
 - Continue to grow the contributor community
- **Standards compliance** is key to Bedework's success, present and future

Bedework the Product

New in Bedework 3.6

- **Public Calendaring:**
 - New default public theme
 - Feed builder and web caching
 - Improved, refactored theming
- **Stronger internationalization**
- **Improved CalDAV performance**
- **Core Bedework packaged in JBoss**
- **System notifications over JMS**
- **Emphasis on ease of installation**



New Public Theme

- Based on Duke/Yale skin (and influenced by Chicago)
- Fully refactored
- Easily customized

University of Chicago

Events Calendar



THE UNIVERSITY OF
CHICAGO

Add an event Send us feedback Help

Week of March 7, 2010

Week of March 14

- Events today
- Events this week
- Events this month

FEATURED EVENTS

- Today**
Mar. 7 **The Strange Case of William Mumler, Spirit Photographer**
2:00-4:00 PM
Other Location (see description)
- Mon.**
Mar. 8 **Haiti Relief Session**
4:30-6:00 PM
Other Location (see description)
- Thu.**
Mar. 11 **A History of the Crypto-Jews?**
4:30-5:30 PM
Classics Building, Room 110

QUICK SEARCH

Keyword

Sunday, March 7, 2010

- | | | |
|-------------------|--|------------------|
| 11:00 AM-12:15 PM | Sunday at Rockefeller | Export Event [?] |
| 12:15 PM-1:15 PM | Rockefeller Tower Tour and Carillon Recital | Export Event [?] |
| 1:00 PM-2:26 PM | Doc Films: Paranormal Activity | Export Event [?] |
| 2:00 PM-3:00 PM | Lecture: Louis Kaplan: "The Strange Case of William Mumler, Spirit Photographer" | Export Event [?] |
| 2:00 PM-4:00 PM | CONCERT: Passport To Jazz With Reginald Robinson | Export Event [?] |
| 2:00 PM-4:00 PM | The Strange Case of William Mumler, Spirit Photographer | Export Event [?] |
| 3:15 PM-5:25 PM | Doc Films: New Moon | Export Event [?] |
| 5:00 PM-5:00 PM | Cantio Sacra: Sacred Vocal Music of the 17th and 18th Centuries | Export Event [?] |
| 7:00 PM-8:52 PM | Doc Films: Jet Pilot | Export Event [?] |

Monday, March 8, 2010

- | | | |
|-------------------|---|------------------|
| 11:30 AM-12:30 PM | Rockefeller Tower Tour and Carillon Recital | Export Event [?] |
| 12:00 PM-1:00 PM | Biophysical Discussions: Pancho Bezanilla and Norbert Scherer | Export Event [?] |
| 12:00 PM-1:00 PM | Wellness Committee Meeting #6 | Export Event [?] |
| 1:00 PM-2:00 PM | Cardiology Lecture | Export Event [?] |
| 2:00 PM-3:00 PM | Chalk Quick Review | Export Event [?] |
| 2:00 PM-4:00 PM | Chemical Hygiene Plan-Laboratory Safety | Export Event [?] |
| 2:30 PM-4:00 PM | Biological Translational Research Workshop (BTRW) - Sam | Export Event [?] |



March 8, 2010

Events@Duke

DAY WEEK MONTH YEAR

Advanced Search Search

« March 2010 »						
Su	Mo	Tu	We	Th	Fr	Sa
28	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	1	2	3
4	5	6	7	8	9	10

Exhibition

until May 21, 2010
Center for Documentary Studies

"Olive Branch: 25 Years in the Life of Mark Fisher & Cedric Chatterley"

DukeReads Online Book Club

with *Michael Malone*

7 p.m., March 17 Webcast

Exhibition

"The Past is a Distant Colony: Hong-An Truong"

until March 21, 2010
John Hope Franklin Center
New Media Space

Calendar Views

« Monday, March 8, 2010 »

Details

Ongoing

All

Official Academic Calendar

Arts +

Athletics/Recreation +

Lectures/Conferences +

Religious/Spiritual

University Events +

Workshop/Short Course

Other +

FILTER BY GROUP/ ORG/ DEPT:

Search for a group by name:

Search

Monday, March 8, 2010

«2/24 - 3/12»	Anne Firor Scott Research Awards Location: None	
8am - 9am	Fall 2010 House Course Applications Due March 15th Location: Allen 103	
8:30am - 9am	Morning Meditation Location: Duke Chapel Crypt	
11:40am - 12:55pm	Financial Econometrics Lunch Group Location: Perkins Library, The Link Classroom 5	
11:45am - 1pm	ECE seminar: Keith A. Bowman Ph.D. , Staff Research Scientist, Intel Corporation Location: Hudson Hall 125	
11:45am - 1pm	ECE Seminar: Keith A. Bowman, Ph.D. Staff Research Scientist, Intel Corporation	

"Lines of Attack" exhibition at the Nasher Museum, Ends 5/16/10 5:00 PM [\[more\]](#)

"Olive Branch: Twenty-Five Years in the Life of Mark Fisher and Cedric Chatterley" and "Reciprocity: Cedric Chatterley's Handmade Cameras", Ends 5/21/10 5:00 PM [\[more\]](#)

Duke Center for Science Education presents the "2010 Student Impact Awards", Ends 3/19/10 11:00 AM [\[more\]](#)




"Something More Out of Life" Exhibit, Ends 5/31/10 7:00 PM [\[more\]](#)

Conscience of a Nation: John Hope Franklin on African American History, Ends 3/31/10 12:00 AM [\[more\]](#)

Cedric Chatterley: Photographs of Honeyboy Edwards, 1991-1996, Ends 3/28/10 12:00 AM [\[more\]](#)

Yale Calendar of Events

DAY
WEEK
MONTH
YEAR
TODAY

<< March 2010 >> Su Mo Tu We Th Fr Sa 28 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 1 2 3 4 5 6 7 8 9 10	 <p>Compass and Rule February 18-May 30</p>	 <p>The Servant of Two Masters March 12-April 3</p>	 <p>A Diorama Takes Shape Through April 25</p>
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Categories

- All
- Classes & Workshops
- Community
- Conferences
- + Exhibitions
- Family Friendly
- Films
- Group Meetings
- + Performances
- Spiritual & Worship
- Sports & Recreation
- + Talks & Readings

« Monday, March 8, 2010 »

[Show Details](#)

Attractions

Monday, March 8, 2010	<table border="0" style="width: 100%;"> <tr> <td style="width: 15%; vertical-align: top;">«1/13 - 3/27»</td> <td style="width: 65%;"> The Book Remembers Everything: The Work of Erica Van Horn Location: Beinecke Rare Book and Manuscript Library (BRBL) Tags: arts, exhibition, humanities </td> <td style="width: 20%; text-align: right;"> </td> </tr> <tr> <td style="vertical-align: top;">«1/19 - 3/27»</td> <td> "Elements of Style: Fashion and Form at the Beinecke" Location: Beinecke Rare Book and Manuscript Library (BRBL) Tags: arts, exhibition, humanities </td> <td style="text-align: right;"> </td> </tr> <tr> <td style="vertical-align: top;">«1/26 - 7/11»</td> <td> "Jane Davis Doggett: Talking Graphics" Location: Yale University Art Gallery (YUAG) Tags: arts, exhibition </td> <td style="text-align: right;"> </td> </tr> <tr> <td style="vertical-align: top;">«2/19 - 5/2»</td> <td> "Eero Saarinen: Shaping the Future" Location: Yale University Art Gallery (YUAG) Tags: architecture, arts, exhibition </td> <td style="text-align: right;"> </td> </tr> </table>	«1/13 - 3/27»	The Book Remembers Everything: The Work of Erica Van Horn Location: Beinecke Rare Book and Manuscript Library (BRBL) Tags: arts, exhibition, humanities		«1/19 - 3/27»	"Elements of Style: Fashion and Form at the Beinecke" Location: Beinecke Rare Book and Manuscript Library (BRBL) Tags: arts, exhibition, humanities		«1/26 - 7/11»	"Jane Davis Doggett: Talking Graphics" Location: Yale University Art Gallery (YUAG) Tags: arts, exhibition		«2/19 - 5/2»	"Eero Saarinen: Shaping the Future" Location: Yale University Art Gallery (YUAG) Tags: architecture, arts, exhibition		<p>Campus Tours</p> <ul style="list-style-type: none"> Yale University Art Gallery Leitner Family Observatory and Planetarium Yale Peabody Museum of Natural History Yale Collection of Musical Instruments Beinecke Rare Book and Manuscript Library Yale Center for British Art Sterling Memorial Library
«1/13 - 3/27»	The Book Remembers Everything: The Work of Erica Van Horn Location: Beinecke Rare Book and Manuscript Library (BRBL) Tags: arts, exhibition, humanities													
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Bedework 3.6



calendar
bedework

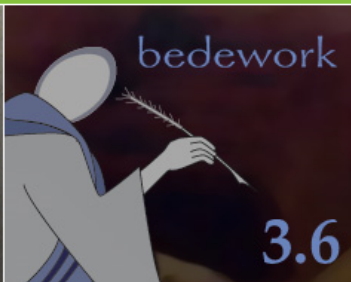
Public Calendar

Personal Calendar | University Home | Other Link

DAY WEEK MONTH YEAR TODAY Advanced Search Search

« February 2010 »

Su	Mo	Tu	We	Th	Fr	Sa
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	1	2	3	4	5	6
7	8	9	10	11	12	13



Calendar Views

Academic Calendar

All

Alumni Events

Arts

Athletics

Clubs and Organizations

Conferences and Meetings

Lectures and Seminars

Other Events

Services and Facilities

Social Events

Special Events

Training

FILTER ON CALENDARS:

[View All Calendars](#)

« Week of February 28, 2010 » Details

Ongoing

Sunday, February 28, 2010

Spring break , Ends 3/14/10

4:00 PM - 5:00 PM

Test DSub Concert



Location: my location

Topical Areas: DirectSub

Tuesday, March 2, 2010

8:30 PM - 9:30 PM

Student Life Committee of the Student Senate



Location: Student Government Suite (Union 3120)

Saturday, March 6, 2010

10:00 PM - 11:00 PM

Test DSub Concert



Location: my location

Topical Areas: DirectSub, Concerts

10:00 PM - 11:00 PM

DSub - didn't click the concert TA



Location: my location

Topical Areas: DirectSub

Feed Url and Widget Builder

Bedework Feed URL and Widget Builder

Raw event feed or an embeddable widget?

- Feed
 Widget

Data format?

- RSS
 JSON
 ICS (iCalendar)
 XML

Specify the number of days (from the current date) or provide a start date and an end date.

- Number of Days:
 Start Date: End Date:

Include everything or only those events from selected categories (Lectures, Arts Events, etc.)?

- Include everything
 Include selected categories only

Exclude nothing from what you've selected above or exclude some categories?


- Nothing to exclude
 Exclude selected categories

Limit to a specific organization?

- No limit
 Limit to an organization

Your URL: <http://j2ee6.server.rpi.edu:9090/webcache/v1.0/rssDays/7/list-rss/no--filter.rss>



Internationalized Themes


Agenda Pública

Agenda Privada | Página de Inicio de la Universidad | Otro Enlace

Búsqueda Avanzada Buscar

DÍA	SEMANA	MES	AÑO	HOY		
«	febrero 2010				»	
do	lu	ma	mi	ju	vi	sá
31	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	1	2	3	4	5	6
7	8	9	10	11	12	13


Vistas de Agenda

- [Academic Calendar](#)
- [All](#)
- [Alumni Events](#)
- [Arts](#)
- [Athletics](#)
- [Clubs and Organizations](#)
- [Conferences and Meetings](#)
- [Lectures and Seminars](#)
- [Other Events](#)
- [Services and Facilities](#)
- [Social Events](#)
- [Special Events](#)
- [Training](#)

FILTRAR AGENDAS:

[Ver Todas las Agendas](#)

INFORMACIÓN DE EVENTOS DE LA AGENDA:

[Gestionar Eventos](#)

[Enviar un Evento](#)

[Ayuda](#)

« **Semana de February 28, 2010** » [Detalles](#) **Eventos Activos**


Spring break , Finaliza 3/14/10

4:00 PM - 5:00 PM

Lugar: my location

Áreas Temáticas: DirectSub

Test DSub Concert




Tuesday, March 2, 2010

8:30 PM - 9:30 PM

Lugar: Student Government Suite (Union 3120)

Student Life Committee of the Student Senate



Saturday, March 6, 2010

10:00 PM - 11:00 PM

Lugar: my location

Áreas Temáticas: DirectSub, Concerts

Test DSub Concert



10:00 PM - 11:00 PM

Lugar: my location

Áreas Temáticas: DirectSub

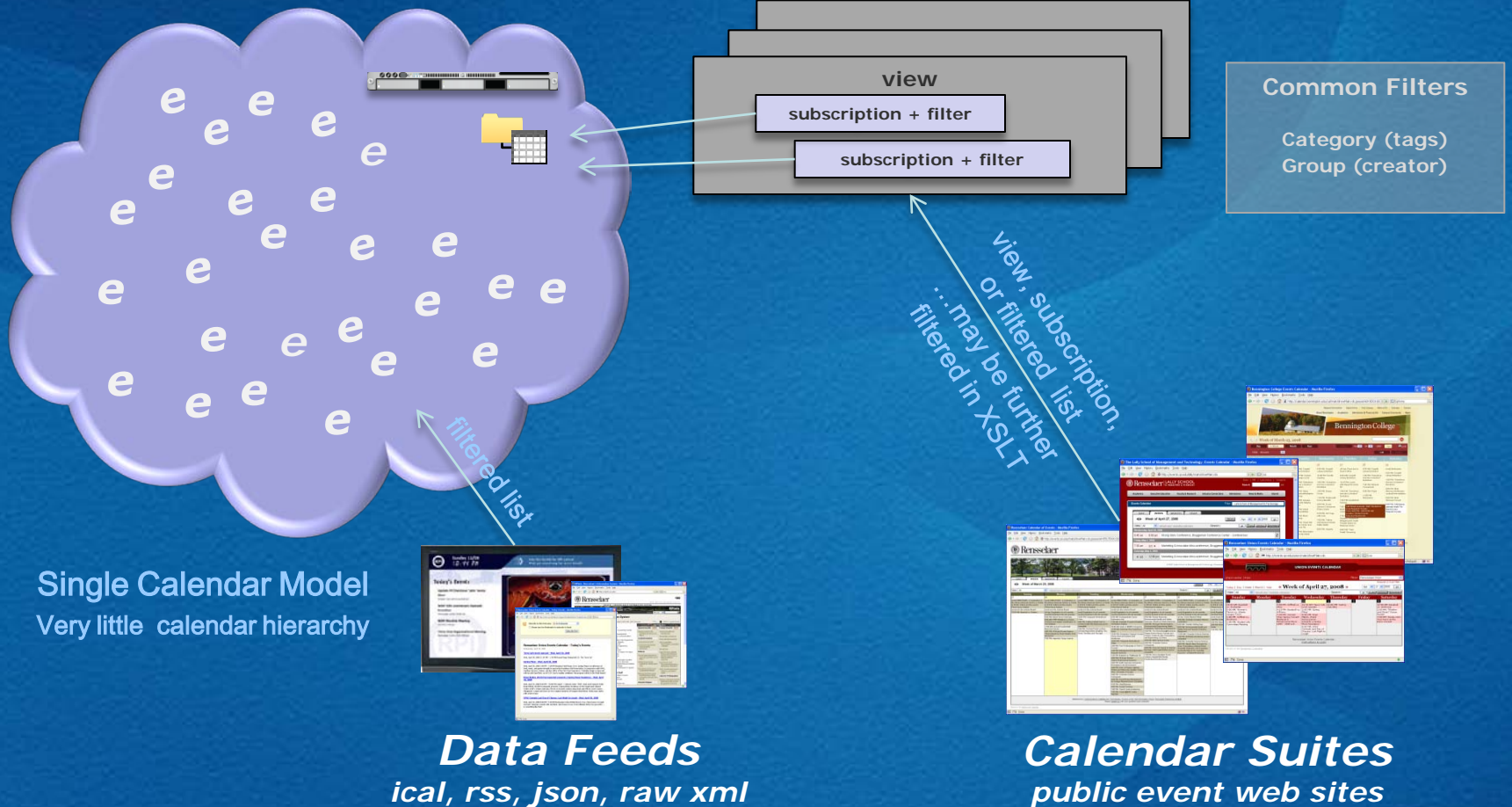
DSub - didn't click the concert TA



Bedework Event Pool

Public Events: Getting Data Out

Public Events



Single Calendar Model
Very little calendar hierarchy

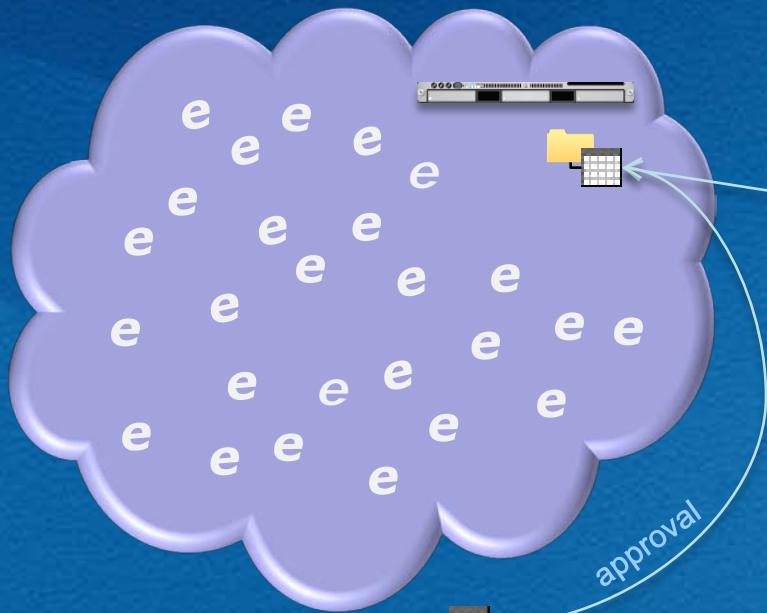
Data Feeds
ical, rss, json, raw xml

Calendar Suites
public event web sites

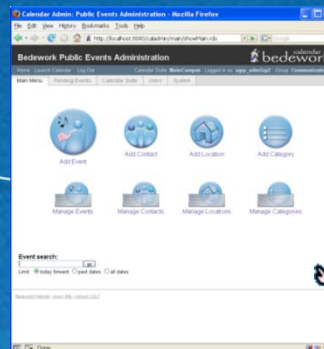
Bedework Event Pool

Public Events: Getting Data In

Public Events

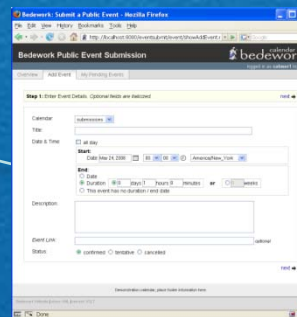


Public Events Administration



Public Events Submission

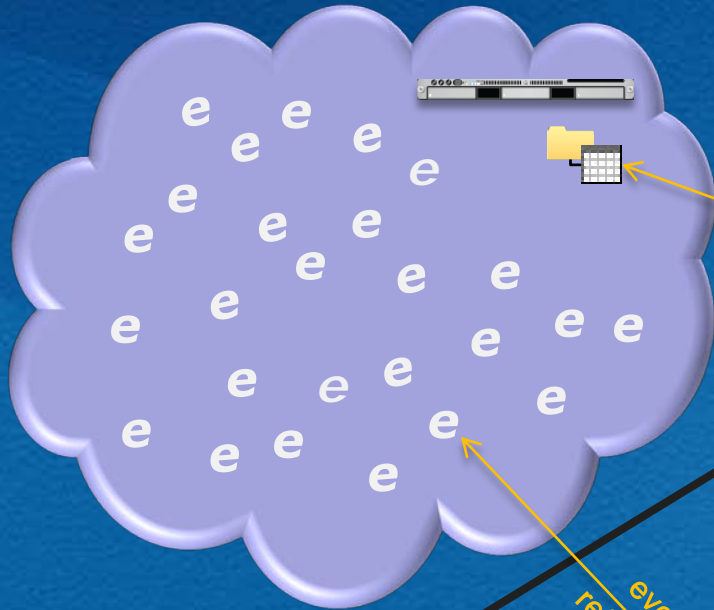
hidden calendar



approval

Bedework Personal Calendaring

Public Events



subscription + filter

ical subscription

www

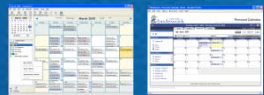
full read access

freebusy only

read/write access

event reference

clients:



desktop web

Personal & Group Events

Bedework
(the product) Futures

UCB & Bedework 3.7

- The University of California, Berkeley and Rensselaer will be collaborating on enhancements to the Bedework personal calendaring client, for deployment at UC Berkeley in late 2010.
 - Support for scheduling and managing resources
 - Managing groups and group invitations
 - Improvements to the web client UI for Free/Busy
 - Improved UI and platform support for integrating external iCal/CalDAV Feeds, especially Google calendar

Further Futures

- **Greatly simplifying administration**
- **Packaging**
- **Hosted/cloud Bedework, ala Shel Waggoner (“above campus services”).**
 - **Hosted Bedework may very well be the future of Bedework**
- **Even stronger internationalization**
- **Bedework the calendaring platform...**

W2C

- Federated/cloud/aggregation
- Workflow, Authentication, Discovery
- Social networking
- Semantic Web
- Handheld/mobile
- Massive scalability
- Pervasive
internationalization/localization
- Event aggregators / harvesters

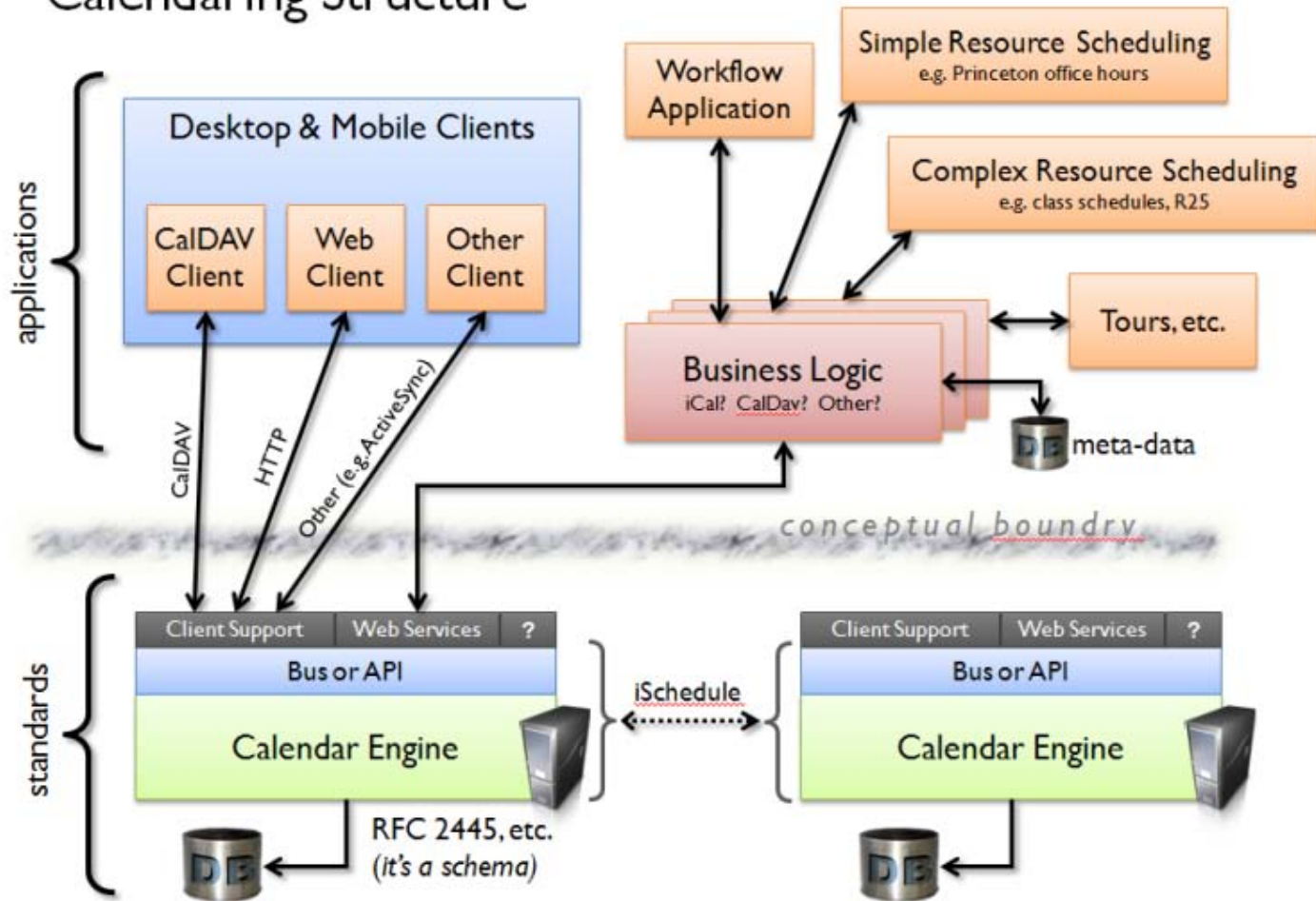
Calendar as a Platform

- Start with calendar data and server/store API
- Can support traditional calendar clients
- Enable consumer calendar data (e.g. web portal widgets)
- Different protocol stacks on top provide flexibility and interoperability between calendar applications
- Extensible calendar services and APIs



Another view

Calendaring Structure



For example - Sakai

- **GT/Sakai/CalDAV**
 - Opens Sakai's native calendaring capability to external CalDAV-based calendaring systems, such as Zimbra or Bedework
 - Groundbreaking in what it attempts to accomplish and what it suggests
 - We should all program within our core competencies, and augment with software produced by those with other competencies

For example - Jiscmail

- **JISCMAil @ Rutherford Appleton Labs**
 - Science & Technology Facilities Council
 - National Academic Mailing List Service
- **Integrating calendaring with massive mailing list service**

For example – Historical data

- **Calendaring as research interface into historical collections**
 - Google maps has shown new perspectives are realized when you look at information from a geographical standpoint
 - A calendar view of a research collection might offer another new view
 - Dimension of date could reveal connections in time missed in more traditional approaches
 - Analogous to Tufte: *The Visual Display of Quantitative Information*
- *15 miles (or more) on the Erie Canal*

"I dream of things that never were, and ask why not?"

- Bedework and Sakai
- Bedework and Foodle
- Bedework and phpScheduleIt
- Agenda builders
- Office hours
- Building hours
- Bedework and conference registration
- Bedework and ???

Bedework the Project

Bedework is Becoming a Jasig Project

- Bedework has broader appeal as a foundation-based project.
- The Bedework community has outgrown RPI's stewardship.
- Jasig's relationship with solutions providers increases the likelihood of commercial support.
- Jasig's relationship with other OSS foundations increases the likelihood of collaborations.
- Bedework is more sustainable as a Jasig project.
- Because, *it's time to take this step.*



Bedework Steering Committee

- *Developers:*
 - Mike Douglass – RPI
 - Arlen Johnson – RPI
 - Eric Wittman - Yale University
- *Stakeholders:*
 - Steve Carmody - Brown University
 - Deb Johnson - Duke University
 - Mimi Mugler - UC-Berkeley
 - Juan Cruz Ruiz de Gauna - Public University of Navarra
- *Jasig Board Liaison:*
 - Gary Schwartz – RPI
- *Jasig Executive Director (ex officio):*
 - Jonathan Markow

Jasig - The Bottom Line

- Jasig sponsorship for Bedework will allow us to meet the requirement that we set forth almost six years ago when we joined the UW Calendar project, *to make a lasting contribution to open source and higher education.*

Broad Project Participation

- packaging people,
- doc people,
- installation people,
- mailing list support people,
- CRM people, etc...

The Bedework project cannot be a great project with only developers, no matter how dynamite the developers.

Collaboration and Support

- **Broad collaboration with projects inside and outside of Jasig**
- **Collaboration with the IDM space/projects – Shib, CAS, etc**
- **Commercial support both large and small**

- Bedework is really coming into its own - thanks to the increasing number of adopters, the increasing number of people who want to get involved, and Jasig sponsorship. It has been a great ride, but truly the best is yet to come.



calendar
bedework



Bedework: Open Source Calendar System for the Enterprise



Bedework is an open-source, enterprise calendar system designed to conform to current [calendar standards](#). Made for higher education and built in Java, Bedework has a centralized server architecture allowing immediate update of public and personal calendaring information.

News & Updates

- [Bedework 3.5 release now available](#)**
 July 17, 2009. We are pleased to announce the release of Bedework 3.5. The release includes optimizations for a calendar pool public event model, improved subscriptions, improved personal client, a CardDAV server, a Timezone server, support for draft 7 of CalDAV scheduling, and ships with Apache DS ldap directory.
- [New CalDAV Protocol website made available](#)**
 A new website for the CalDAV Protocol has been established at <http://caldav.calconnect.org/>. CalDAV is a calendaring and scheduling client/server protocol designed to allow users to access calendar data on a server, and to schedule meetings with other users on that server or other servers. The CalDAV Access protocol has been standardized by the IETF and published as [RFC 4791](#).
- [Bedework & Large Venue Ticketing \(pdf\)](#)**
 Bedework was recently used as the central component in a ticketing system for Rensselaer's Experimental Media and Performing Arts Center, exploiting the calendar as an application platform.
- [Bedework 3.4.1.1 Released](#)**
 June 3, 2008: We are pleased to announce the release of Bedework 3.4.1.1. See our [recent changes](#) for details.
- [Bedework Visits Europe](#)**
 In November 2007, members of the Bedework team along with Dave Thewlis, the Executive Director of [CalConnect](#), traveled to England, Denmark, Sweden and Spain to meet with European developers.
- [Bedework at "1"](#)**
 Reflections on Bedework's one year anniversary.
- [IETF publishes CalDAV Proposed Standard - RFC 4791 \(PDF\)](#)**
 CalDAV has moved from draft to [RFC: CalConnect](#), the calendaring and scheduling consortium - of which the Bedework developers are members, has released this [press release \(PDF\)](#) lauding the development.
- [Bedework Receives Mellon Foundation MATC Award](#)**
 Bedework was among the 10 initial recipients of The Andrew W. Mellon Foundation's Technology Collaboration (MATC) award for leadership in the collaborative development of open source software tools with particular application to higher education and not-for-profit activities.

overview

- News
- Features
- Who's using Bedework
- Publications
- Calendar standards
- Recent changes
- FAQ
- Getting started =>

[site map](#)



Bedework is maintained under a "BSD-style" [open source license](#).