Bechtel's decision to adopt web-based project collaboration and pitfalls to avoid in proper implementation

Woolsey McKernon, Director Business Development & Marketing

April 26, 2000
1. Cephren Overview
2. Bechtel’s decision to go to the web
3. Portland Light Rail – the guinea pig
4. Lofty goals
5. Functionality enhancements
6. Lessons Learned
Company History

• History
  – Founded in January 2000 through the merger of:
    • Blueline Online, Inc. (the premier project collaboration service founded in January 1997) and,
    • eBricks.Com, Inc. (the leading construction supplies network founded in May 1999)

• Investment
  – $60+M in Venture, Strategic and Private Equity investment.

• Products and Services
  – ProjectNet®, Cephren's award-winning project collaboration and project management service
  – PrintNet™, Cephren's online reprographics and print services marketplace
  – MarketNet™ Cephren's fast-growing, online marketplace for buyers and sellers of construction products and services
  – Catalog Purchasing & Auction Services will be rolled out over the next 12 months

ProjectNet®, Cephren's award-winning project collaboration and project management service
Why did Bechtel go to the web?
The Construction Industry – Chaotic

- Owner, Developer
- Architects, Engineers
- Supplies, Wholesalers, Building Product Manufacturers
- Government, Regulatory Agencies, Other
- Subcontractors, Specialty Consultants
- E-mail, fax
- Courier
- Voice mail
- Mail
- FedEx

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Cephren
Off-Line Project Flow - RFI’s
A client’s Information Management Plan

MISSION
“Information management shall allow the timely sharing of the most current information between all project participants. The technology used will promote information exchange on a real-time basis, while providing the necessary safeguards to ensure information accessibility is appropriately controlled.”
"The Bechtel Group regards the advent of the Internet to be a fundamental change transforming how the engineering and construction industry does business. Cephren is the leading provider of the most scaleable Internet collaboration and e-commerce framework for our industry and has assisted Bechtel in taking significant steps to leverage the Internet in delivering quality services to our global customers."

-Riley Bechtel, Chairman and CEO at Bechtel Group
Portland Light Rail –
the guinea pig

Why PLR?

- A strong Project Manager
- A willing team
- Multiple parties
  - The client – Tri-County Metropolitan Transportation
  - David Evans and Associates
  - STV
  - LTK
  - Siemans and others
- Major drawing exchange
Bechtel’s first implementation of ProjectNet
11/98

- Closed Network
- High Maintenance costs
- Behind on releases
The Role of ProjectNet

“Document-centric” project management for Bechtel
- Correspondence
- Functional docs
- General Items
- Specifications
- Procurement docs
- Bechtel Drawings
- Eng’y Support Documents

“Person-centric” project management for the individual
- Email
- Calendar
- Tasks
- Contacts
- Public (Bechtel) folders

“Project-centric” project management for the entire project team

EDMS as document repository
Synchronize with Outlook
- Universal viewing/markup of documents
- Secure file upload from any application
- Team Directory
- Link to Outlook for project calendaring, action item tracking, etc.
- Universal project forms (RFI, etc.)
ProjectNet Goals for PLR

**Design**
- Front-end to all project documentation (involve partners securely)
- Web based viewing, redlining & annotation of drawings
- Secure FTP for file sharing
- Whiteboard conferencing & drawing review

**Procurement**
- Online bidding, distribution, notification, audit trail, publishing

**Construction**
- Electronic shop drawing distribution and Virtual Plan Room
- Shared online Forms (RFI’s, Meeting Minutes, Issues), audit trail and logs

**Operations**
- Archive (documents, messages, forms and all associated audit trails) to CD
What we ended up with...

- FTP drawing submission to Bechtel
- Xref/background file share for consultants
- Posting of Meeting Minutes, Project Photos, Project Directory, etc.
- Erouting of RFI’s between Subcontractors, Bechtel Engineering, Bechtel Construction, Consultants
# ProjectNet - How is PLR Doing?

## User Access Report

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Functionality enhancements b/c of PLR

- Tighter security levels on folders/documents
- Revision control
- Automatic xref upload
- Schedule drawing uploads
- Easier file upload (integration w/ Windows Explorer)
- Easier creation of Meeting Minutes
- Routing of RFI’s
- Viewing of tiff’s, max files
Lessons Learned

- Need to focus on up-front proper implementation planning with ALL team members
- Proper training of ALL participants
- Use of tool needs to be driven at the highest level
- Dedicated project support = CRM
- Don’t “baseline” your first project
- Buy a paper scanner
- Ensure that every team member has Internet access
- Ensure the technology is ready for primetime...
- “Web-based” doesn’t mean client server, but ASP
Adoption of ASP

- Application Service Provider (ASP)
  - Focus on their competency (EPC...)

- Internet vs. Proprietary Network
  - Don’t pay for network infrastructure you don’t need

- Software Updates
  - Monthly feature enhancements
  - Immediate access to new features

- Support
  - 24X7X365
Hotel Serrano - $15m

3Com Corporate Campuses in CA & UK

Cana Brava - $600m in Brazil

Webvan – 26 sites in US

Expansion of largest Copper Mine in world

The Venetian Hotel - $3b
Industry/ Media Validation & Awards

THE WALL STREET JOURNAL.
The New York Times

enr.com
Engineering News-Record

A-E-C Automation Newsletter

INTERACTIVE WEEK

internet news.com
Cephren's online workplace is designed specifically for the construction industry to address your collaboration, project management and procurement needs throughout the design-to-build process.

Whether you're an owner or developer, architect or engineer, general contractor or subcontractor, distributor or manufacturer, Cephren's services enable you to do business smarter, faster and more cost-effectively.

Our service offerings include:

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Thank you...