ELECTRONIC PROCUREMENT
What does it buy you?

Example: Rocky Flats Environmental Technology Site

NWCCC June 27th 2001

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PRESENTATION TOPICS

🔹 e-Procurement Overview
🔹 Benefits
🔹 Rocky Flats Project Example
  Industry Structure & Profiled Companies
  Results and Project Challenges
🔹 e-Procurement Entry Points
WHAT IS E-PROCUREMENT?

- Online Catalogs, Marketplaces
- Internal Purchasing Software (approvals, catalogs, management)
- Reverse Auctions
- Information Exchanges: Web portal to information, Web GIS, RFPs
VALUE PROPOSITION

- Reduce transaction costs by >30% [paperwork, approvals, etc…]
- Improve PM’s effectiveness - [faster receipt and status checks]
- Reduce prices of goods & services procured by 10-40%
- Purchasing data consolidation / integration/ management
RFETS EXAMPLE

Fall of 2000: Evaluated the value and practicality of a web-based procurement system for RFETS.

Specifically, the project addressed the following core issues:

- Where are the greatest sources of economic leverage in the procurement system?
- What are the components of an e-commerce solution for procurement and what alternatives exist for supplying them?
- What barriers, level of investment and return on investment (ROI) can be expected?
- What implementation plan makes sense?
PROJECT PHASES AND ACTIVITIES

Phase I
Baseline and Diagnostic

- Extensive interviews
  - Management team
  - Project Managers
  - Procurement personnel
  - Vendors/suppliers
- Collection and analysis of cost/performance data

Phase II
Alternative Generation

- Organize industry analysis and research
- Evaluate models applicable
- Describe specific solutions
- Identify new systems, skills, and technologies for each applicable model
- Interview potential e-commerce vendors

Phase III
Evaluation and Recommendations

- Revise scope & approach based on Phase II
- Evaluate shortlist of alternative solutions and vendors in greater detail: economics, system requirements, etc.
- Recommend solution(s) and vendor(s) for consideration

Phase IV
Action Plan

- Create specific action plan with options for implementation
- Select e-commerce software or vendor
- Install system and rollout
BREAKDOWN OF COMMODITY SPENDING BY CLASS - 2000 $ millions

RFETS Annual spending: Commodities = $50M; Services = $350M

Commodity classes have been reduced from 4 down to 2.
TRANSACTION COSTS
PROCUREMENT SYSTEM CONFIGURATION

The lack of procurement system integration and high level of manual input requirements continued to drive costs up and increase time needed for project completion.

Source: Client Interviews
SPECTRUM OF e-PROCUREMENT SOPHISTICATION

The DOE-complex was relatively unsophisticated in electronic commerce compared to the private sector.
Even the relatively conservative construction industry expects to have a significant portion of its business on-line within two years.

*Survey Question: What percent of your firm’s business transactions are done on the Internet?*

**Currently**
- 0%: 0.7%
- 10%: 29.7%
- 25%: 5.8%
- 50%: 1.4%
- 75%: 0.7%
- 90%: 0.0%
- 100%: 62.3%

**In Two Years**
- 0%: 5.6%
- 10%: 24.3%
- 25%: 37.5%
- 50%: 22.9%
- 75%: 6.3%
- 90%: 3.5%
- 100%: 0.0%


Source: ENR Magazine
RAPID B2B GROWTH LED TO CONSOLIDATION

GROWTH IN B2B EXCHANGE SITES
number of sites

- Explosive growth in number of B2B sites over past 6 months
- Industry shake-out predicted and already underway

Source: Merrill Lynch; Economist
HORIZONTAL AND VERTICAL EXCHANGES

e-Commerce companies and vendors can be characterized by whether they serve across industries (horizontal) or within an industry (vertical).

Vertical Exchange

Maintenance, Repair and Operation (e.g., MRO.com)
[Officedepot.com]

Market Makers

Customer Service Software (e.g., Siebel)

Horizontal Exchange

Steel
Chemicals
Construction

Source: University of Denver (2000)
# B2B Companies Most Applicable to RFETS

Hundreds of companies were screened based on their stability, business model, and applicability to RFETS. Five were selected to respond to an RFP. 4 Responded!

<table>
<thead>
<tr>
<th>Company</th>
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<th>Services</th>
<th>Project Management</th>
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The RFETS Solution

Business Process Reengineering

Issue RFP

Selection of Ariba Buyer

CH2M Hill Partnership with American Management Systems (AMS) for software integration

Online in February, 2001

Projected savings $20M - $30 per year

Other e-commerce solutions upcoming...
REVERSE AUCTIONS

Rapidly growing method for competing services.

* On price only; other criteria considered for “best value”
INFORMATION EXCHANGES

Better information = less uncertainty = less “cushion” in bids

Contractors view interactively

• Facility plans
• As-built drawings
• Demolition requirements
• Contamination locations
• Contracting terms
• Bid format

Rocky Flats Obtains

• Focused inquiries
• Qualified, prescreened contractors
• Consistent bid format
• Reduced uncertainty in Cost estimates
• Potentially lower fixed-price contracts

D&D information exchange
WHEN DOES E-PROCUREMENT MAKE SENSE?

e-Commerce solutions are now more scalable so organizations of all sizes can achieve savings and e-commerce “wins”

Reverse Auctions - $40K pilot program to conduct 5-6 auctions.

e-Procurement software - Total solution cost ranges from $150,000 (CH2M Hill Purchase Platform) to $2M (Ariba Buyer)

Participation in/ creation of online marketplaces (Ariba, CommerceOne)

**e-Procurement is most valuable when the following conditions exist:**

High transaction costs (slow/cumbersome approval processes)

Most purchasing is from catalogs (as opposed to custom fabrications)

Procurement organization is fragmented

Strong relationships with suppliers
CHALLENGES AND LESSONS LEARNED

Integration with other systems is the “hidden” cost.

Business Process Reengineer is essential to realize savings.

*Don’t do the wrong thing faster!*

Two critical success factors:

- Strong program management *(hint: know the PM)*
- Proactive vendor relations

Payback periods:

- Services = approximately 6 months
- Commodities = approximately 1-2 years
ATTACHMENT:
Screen Captures of e-Procurement Systems

CH2M Hill Online Purchasing Platform
In Partnership with ENI.Net

Ariba Buyer
CH2M Hill Online Purchasing Platform
In Partnership with ENI.Net - Home Page

WHAT CAN ENI.NET DO FOR YOU...
ENI.Net is a comprehensive directory of companies providing products and services to the environmental and construction community. You can utilize ENI.Net to research, locate, evaluate, and select suppliers who respond electronically to your requests for proposals through their existing e-mail capability.

EXAMPLE MEMBER NEWS

Monday, June 4, 2001
Hibb Recoupling joins the ENI.Net network - Hibb Recoupling

Friday, June 1, 2001
Scaramo Group, Inc. joins ENI.Net in Atlanta, GA area - Scaramo Group, Inc.

Tuesday, May 29, 2001
STEINS DRILLING offers new COLOR CAMERA services - Steims Drilling

Thursday, May 24, 2001
Integrated Ceramics Inc. joins ENI.Net - Integrated Ceramics Inc.

Thursday, May 24, 2001
BARUS Consulting, Inc. joins ENI.Net - Barus Consulting

Thursday, May 24, 2001
Environmental Technology Company is EX-IM Bank Small Business Exporter of the Year - Environmental Dynamics

Full List
# CH2M Hill’s Online Purchasing Platform

In Partnership with ENI.Net - *Request for Proposal*

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**RFP Management**

- General → Services → Materials → Attachments → Suppliers → Review → Send → Replies → Buyer's Comments

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## Review RFP

**Continue >>>**

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### RFP Details **MODIFY**

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<thead>
<tr>
<th><strong>Project Title</strong></th>
<th>Drilling Services for ABC Project</th>
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<td><strong>Project #</strong></td>
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<td><strong>Contract #</strong></td>
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<td><strong>Procurement Description</strong></td>
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<tr>
<td><strong>RFP Number</strong></td>
<td>957</td>
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<tr>
<td><strong>This document is created from</strong></td>
<td>RFP # 620</td>
</tr>
<tr>
<td><strong>Note to Supplier</strong></td>
<td>Please direct all questions to the attention of Don Ulrich at the address shown on the RFP faceplate.</td>
</tr>
<tr>
<td><strong>Last Update</strong></td>
<td>6/5/2001 3:33:52 PM</td>
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### Buyer Information **MODIFY**

<table>
<thead>
<tr>
<th><strong>Company</strong></th>
<th>CH2M Hill</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Contact</strong></td>
<td>Tom Smith</td>
</tr>
<tr>
<td><strong>Phone</strong></td>
<td>303-555-1234</td>
</tr>
<tr>
<td><strong>E-Mail</strong></td>
<td><a href="mailto:tsmith123@ch2m.com">tsmith123@ch2m.com</a></td>
</tr>
<tr>
<td><strong>Address</strong></td>
<td>116 Inverness Drive South</td>
</tr>
<tr>
<td><strong>City</strong></td>
<td>Englewood</td>
</tr>
<tr>
<td><strong>State</strong></td>
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</tr>
<tr>
<td><strong>ZIP</strong></td>
<td>80112</td>
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</table>

### Project Location **MODIFY**

<table>
<thead>
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<th><strong>Company</strong></th>
<th>CH2M HILL</th>
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</thead>
<tbody>
<tr>
<td><strong>Contact</strong></td>
<td>Don Ulrich</td>
</tr>
<tr>
<td><strong>Phone</strong></td>
<td>303-771-0900</td>
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Ariba Buyer at RFETS - Home Page