

The Digital Economy



Digital Economy & Procurement

- The “Digital Economy” - Sector of the economy traditionally considered as IT, including all goods, services, ancillary products, & IT-affected products
- Includes all embedded IT in non-IT products to enhance their functionality, e.g., watches, cars, planes, bldgs., etc.
- Addresses any level of the economy, from local to global

Today's Digital Economy

- The state of DE today equals the state of aviation in 1921
- U.S. digital economy worth hundreds of billions of dollars
- Federal gov leading the way in some areas
- Some states and locales advanced - CA, VA, MD, PA, etc.
- Most organizations are progressing through stages:
information, interaction, transaction, transformation
- Third World furthest behind
- Democratic, industrialized nations typically most advanced

Digital Economy & Procurement

Price Indexes for Computer Equipment 1992= 100

Year	Domestic Mainframes	Domestic PCs	World-Wide Semiconductors	Domestic Computer Equipment
1958	142 773.6			
1972	3 067.3	n. a.	(204 209.2)	2 207.8
1982	382.5	578.7	2 380.4	391.6
1992	100.0	100.0	100.0	100.0
1994	80.1	69.5	69.0	77.7
1996	42.8	37.9	26.5	46.1
1998	26.1	15.3	-----	23.1

Digital Economy & Community

- Communication global & instantaneous
- Wholly interdependent national & international economies
- More developed the economy - more interdependent - politically, defensively, commercially, etc.
- Underdeveloped nations have greatest opportunity to “leapfrog” ...all else being equal
- Traditional manufacturing boosted by the DE
- Cheap labor producing quality goods for DE marketing

Technological/Scientific Synergy

- Speed of scientific discovery sharing & teaching
- Global audience for learning
- Effects: speed, scale, simultaneous change, reordering of expected order, disintermediation (middleman out!)
- DE alters who gets what & when
- Knowledge intensive roles: medicine, law, science, engineering - may be increasingly affected

Cont. Technological/Scientific Synergy

- Progression of Collaboration:
 - Individual
 - Team - Corporate
 - Extended Teams - Joint ventures, Consortiums, Conglomerates, National
 - Networks of Teams - Global, Cross-cultural, Interdisciplinary, Trans-corporate, Trans-national
- Simultaneous sharing & discovery
- Scientific advances outpacing inventions accelerating DE

Digital Economy = Outreach

- Worldwide commercial presence
 - Multi-lingual
 - Multi-cultural
 - Religious sensitivity
 - National history
- Market share - global
- Cost-effective delivery channels
 - Web preferred
 - CD-ROM
 - Simultaneous Web, CD, radio, TV, newspapers, journals
- Streamlined customer enrollment
 - Web preferred
 - Customer updates own customized account

Cont. Digital Economy = Outreach

- Better knowledge of customer = Better Marketing
 - Customized products/services
 - Focused, personalized marketing
 - Long-term relationships
 - Spend to keep customer...cheaper than acquiring new ones
 - Evolve per customer feedback
- Large network connectivity vital to survival

The “Digital Divide”

- Term characterizes the gap between the “information haves & have-nots.”
- Gap is difference of access to telecommunications technology - phones, computers, the Internet
- Demographics: economic, geographical, racial, language
- Broadband (Bb) a subset of communications infrastructure - speed & volume up to 100 times greater - cable, DSL, wireless, satellite
 - Bb growth faster in urban & high-income areas
 - Driven by demand & economics

Cont. The “Digital Divide”

- Cont. Bb
 - Some argue for gov intervention
 - 7/01 study - 7% - 8% American households have Bb access
 - 4/00 Ag Dept Report
 - <5% of towns of 10K or less have Bb access
 - cable Bb access available in >65% of cities >250K
 - telephone network Bb deployed in 56% of cities >100K
- Hope = schools, libraries, USPS, businesses...homes

Social Impact

- Community-building...neighborhoods to global family of mankind
- Broader & better education & knowledge
- Enhanced inter-cultural understanding
- Increased personal & community security
- Higher productivity & lower costs...potentially
- Greater inter-religious tolerance
- Reduced ignorance, bias, prejudice
- Reduced conflict
- Reduced “processing” & more “results”

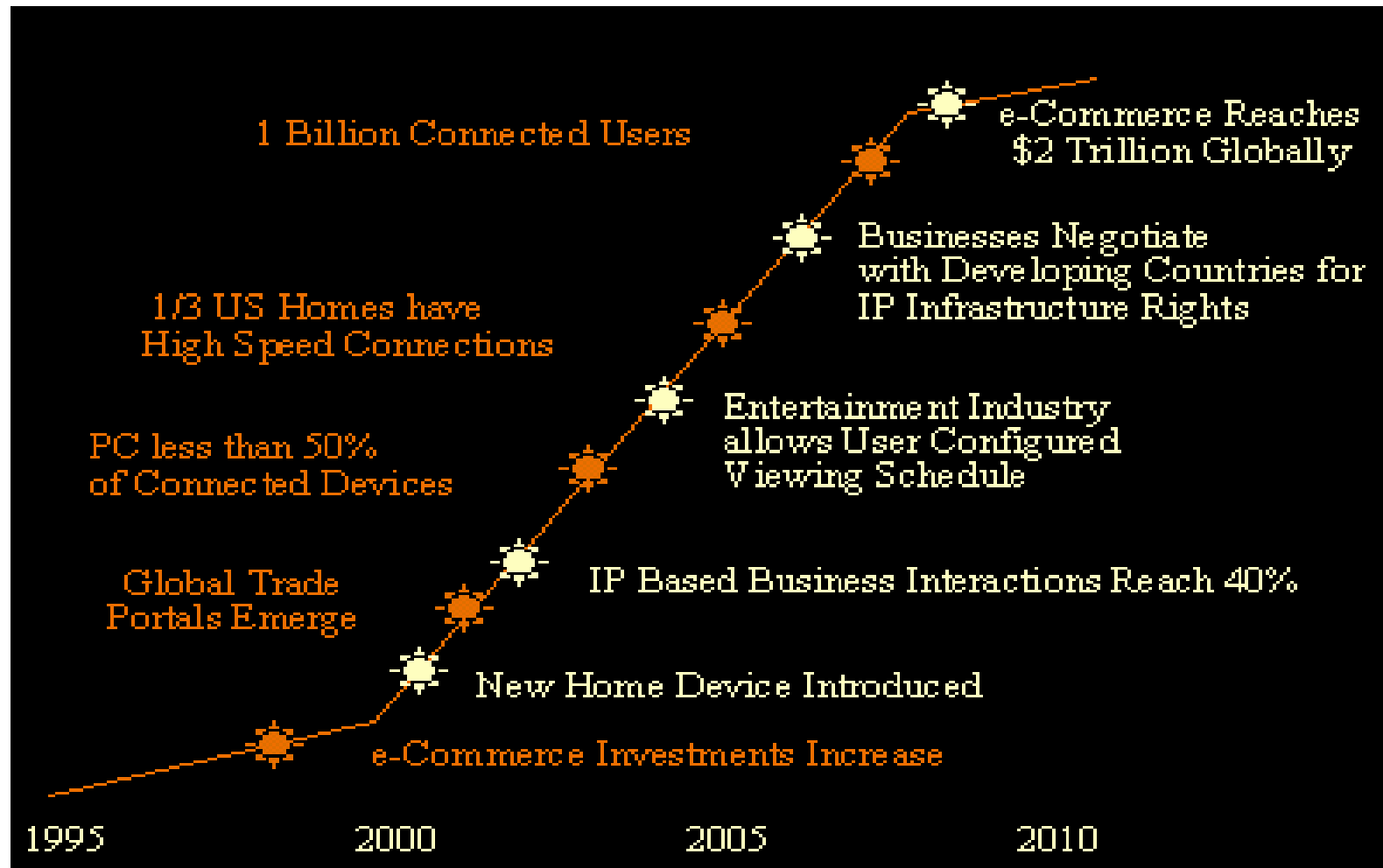
Psychological Impact

- “I am not alone!”
 - “I am never alone!”
- “I am interconnected.”
 - “I am interdependent.”
- “What I do affects others.”
 - “I can have great influence...for good or bad.”
 - “What others do impacts me.”
- “We all need to work together.”
- Openness vs. paranoia
- Person - interconnected, interdependent, accessible
 - Place - unlimited - global
 - Time - unlimited - 24/7

DE Challenges

- Privacy
- Security
- Equal access
- Taxation
- Governance
- Censorship
- Veracity
- “Tough industries” - e.g., home construction
- Few technological issues

Digital Economy Forecast



Sec. 508 & the Digital Economy

- Sec. 508 ensures that federal employees & the public have equal data use & access through the government buying only accessible IT
- Federal procurement is the control point...effective 6/25/01
- Tens of thousands of Americans: more readily obtain & be productive in federal employment
- Millions of Americans: better informed & more productive citizens
- Tens of millions of world citizens: information & employment benefits

[see more @ www.treas.gov/procurement/508]

Cont. Sec. 508 & the Digital Economy

- Societal enrichment
- Individual productivity
- More diversified & enriched labor force
- Greater labor pool
- More productive labor force
- Minimally higher costs for IT products
- More advanced technology for individuals without disabilities
- Greater American business competitiveness overseas

Treasury Procurement Implications - Essentials

- Skills development in IT applications
- Work locally --- Think globally
- Practice teamwork
- Participate in your “communities of interest”
- Embrace the DE outside work - services, schools, shopping, social communication
- Embrace IT enhancements (changes!) - they’re opportunities!
- Practice continuous learning!!!

Contact...

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Knowledge Management



What is knowledge?

- “Knowledge is the small part of ignorance that we arrange and classify.” --Ambrose Bierce (1842 - 1914)
- What we know --- purified by reality
- Knowledge continuum:
 - Data  Information  Knowledge (Tacit & Explicit)
(Fuller understanding of data in context) (Information refined by reliable practice)
- Two kinds of knowledge:
 - Explicit: formal; systematized; recorded for posterity; “book knowledge;” “white papers;” policy manuals; general documents
 - Tacit: personal “know-how;” “tricks of the trade;” seasoned intuition; resident in individuals; typically developed from experience

What is knowledge management (KM)?

- “A discipline that promotes an integrated approach to identifying, capturing, evaluating, retrieving and sharing enterprise information assets.” (Gartner Group)
- “KM is the process through which an enterprise uses its collective intelligence to accomplish its strategic objectives.” (Ramon Barquin, Barquin International, Inc.)
- A “people enabler” not a technological solution
- Steps of KM process:
 - K creation
 - K capture
 - K application
 - K measurement

Why is acquisition KM important?

- Research = groups beyond 200 - 300 people lose grasp of collective K, & over time, a large quantity of K resides with only a few people in the organization
- Federal acquisition profession needs KM:
 - Budget cuts, downsizing (1993 - 1998, 1102 series Contract Specialists diminished at rate of 8% - 9%/yr.; 42% retirement eligibility by 2008; 22% by 2003)
 - Limited incoming talent (1:6 outside hires)
 - Contracting-out emphasis
 - Increased procurement actions, e.g., competitive sourcing
 - Private sector demand for experienced federal Contract Specialists
- Transfer abundance of acquisition knowledge being lost by attrition
- Increase efficiency & productivity
- Capture & spread internal know-how, best practices & experience
- Eliminate “reinventing the wheel”
- Avoid repeating same mistakes

What is acquisition KM content?

- Acquisition regulations such as FAR & agency FAR supplements
- Pertinent statutes & Executive Orders
- Relevant work samples
- Training opportunities & case studies
- Sound practices, promising practices, lessons learned
- Workbook competencies
- Relevant articles
- Acquisition experiences

Cont. What is acquisition KM content?

- Live group collaboration
- Live group problem-solving
- “Ask an Expert”

How is acquisition KM deployed?

- Web-based portal typically
- Web-based KM portal is a common Web access point for delivery of highly integrated & highly sophisticated knowledge, using specialized features, to a target audience.
- Portal becomes the targeted users' preferred access point for most efficiently & productively accomplishing work
- Web-based portal is the most advanced technical tool for KM deployment...& is continuously improving

Quality KM Site Functional Capabilities

- Quick, easy, immediate, ubiquitous access
- Single sign-on access to all linked sites
- Email account
- Links to sources of explicit K (where it's maintained!)
- “Chat rooms”
- “Threaded discussions”
- Customization - presentation & content delivery based on criteria set by user
- Personalization - tailor the presentation of content to individuals or classes of customers based on profile info

Cont. Quality KM Site Functional Capabilities

- Alerting - matches incoming streams of new information against users' profiles & "pushes" it to them by user-selected means
- Search & Retrieval with Filtering
 - Can find out who else has been searching on a topic
 - Can direct search agent to push new info to desktop, cell phone, or hand-held computer
- Virtual work space or "e-room" where docs are easily exchanged
- Web conferencing
- Virtual communities of practice (e.g., Contract Specialists, Price & Cost Analysts, Procurement Analysts)
- Shared presentations
- Networks of subject matter experts

How do you create an acquisition KM portal?

- Senior management buys into KM concept & need for KM culture
- Senior management establishes critical prerequisites for the acquisition workforce:
 - Major culture change - other-focused
 - Sharing highly prized & supported
 - Rewards & recognition for contributing to KM
 - Use encouraged, NOT mandated
 - Credit for most use of KM
 - “Best Seller” list of most frequently accessed contributions
 - Performance plans include requirement for KM use and contributions
- Decide whom portal is to serve
- Link KM to measurable business goals & overall business strategies --
and derive KM solution from user needs to address the goals & strategies
- Implement, maintain & evolve

KM Portal Do's & Don't's

- CIO lead? --- NOT!!!
- DO make a key content manager the lead
- DO NOT focus on the technical tool enabling KM
- DO focus on your users & their behavior & culture
- DO NOT concentrate on technology generally
- DO concentrate on integrating business goals & business strategies, & meeting user K needs

Will there be a federal acquisition portal?

- GSA's new Intellectual Capital Management Office, in collaboration with the PEC, leading the federal acquisition KM portal project
- Interagency user group providing guidance
- YOU can participate NOW in this portal for Reverse Auctioning, PBSC, Share-in-Savings & more by free registration at <http://67.104.144.235>

Will there be a Treasury acquisition portal?

- Office of Procurement (OP) EC Team has initiated a Treasury acquisition KM portal project to complement the federal acquisition portal under development by GSA
- Current year funding has been obtained
- Bureau user representatives have provided input
- The OP Web site has been re-engineered to a “pre-portal” status
- What do you want at the Treasury Acquisition Portal?

Why should I make proper use of an acquisition KM portal?

- Increases efficiency & productivity
- Indicates a personal change indicative of the new essential sharing/collaborative acquisition culture
- Enhances your marketability in the job market - gov or private sector
- Rewards entitlement (at management discretion)
- Matter of acceptable performance

Examples of KM Portal Sites

- U.S. Army's Army Knowledge Online (www.us.army.mil)
- One-stop super site for employees
- U.S. Navy's Surface Warfare (www.swonet.com) - Some portal aspects to this site catering to the Navy's approx. 8,600 surface warfare officers
- CIO Council's KM Working Group (www.km.gov) - General KM info
- Commercial General KM Site (www.eknowledgecenter.com)

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Central Contractor Registration (CCR) System

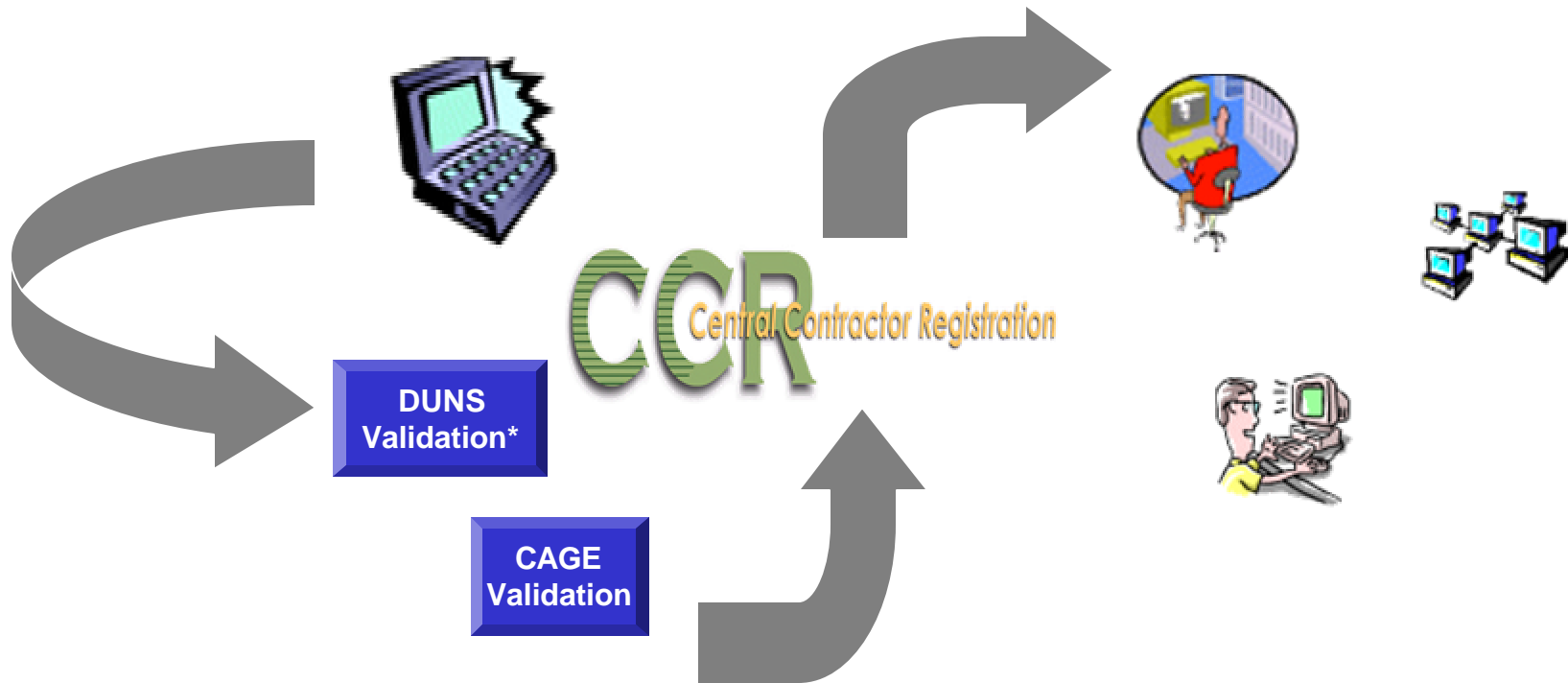


What is it?

- **As of 10/1/02, the single point of vendor registration for provision of organizational information**
- **Located at www.ccr.gov**
- **Developed & maintained by DoD with PWC support**
- **Operational for DoD in 1998**
- **Occasioned by industry multiple registration complaints**
- **Used to collect & use company administrative & EFT data**
- **Designed for electronic interfacing with automated procurement &/or financial systems**
- **May be accessed through CCR Tools by Web browser or through CD's**
- **Vendor maintains own data**
- **Secure access to Proprietary & Sensitive data**

What data is collected?

- **DUNS/DUNS+4 Number**
Agreement with D&B to do a quick assignment if for CCR
- **CAGE Code (DoD, NASA, DoE Use)**
If vendor doesn't have one, it is assigned (except foreign)
- **TIN/SSN**
- **Legal Name, Doing Business As Name, Address**
- **Type of Organization & Socio-economic Status**
- **Types of Goods & Services (NAICS, SIC, FSC, PSC)**
- **EFT and Remittance Information**
- **Points of Contact**
Gov't Business, Electronic Business, Past Performance
- **EDI Transaction Information**



Database Metrics (As of May 2002)

- Approximately 197,000 active vendors
- 2500+ new vendors per month
- 9 hours processing time April 2002
(Requirement is <48 hours per DFARS)

Weekly processing indicates that:

- 60% actions are updates
- 20% actions are new
- 20% actions are deletes/expired

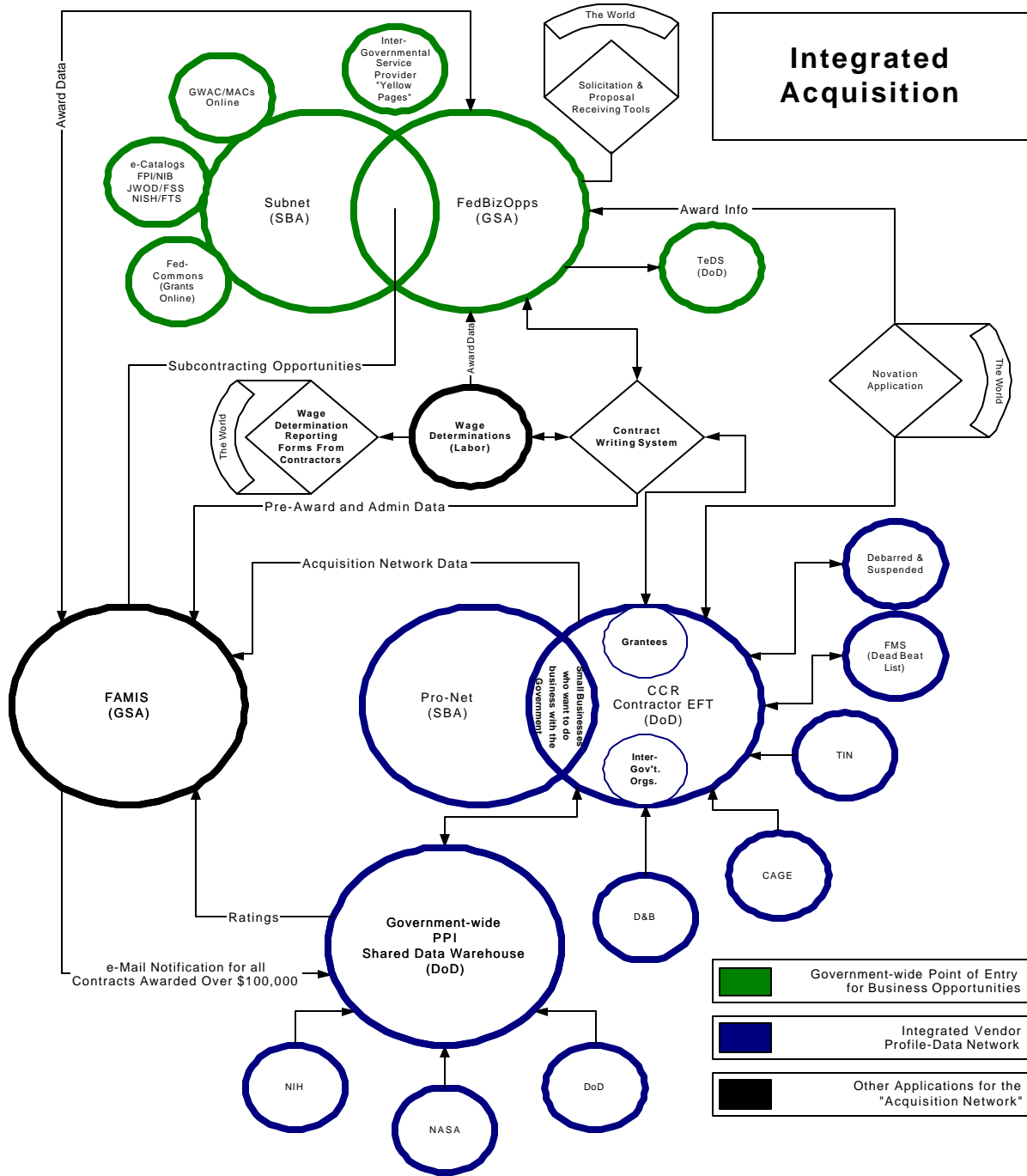
Market Research Use

- Buyers locate firms expressing specific expertise
- Vendors identify potential business partners
- Buyers obtain EFT data
- Buyers obtain reliable, accurate general company info

Future Enhancements

- **SBA PRONet validation of socio-economic factors (Fall 02)**
- **HP/Oracle architecture (12/02)**
- **XML dissemination options (12/02)**
- **Expansion to cover grants**
- **Annual vendor certifications & representations**
- **Expansion to cover Inter-Agency agreements**
- **TIN validations with the IRS**
- **Mark outstanding debtors**
- **Capability to email vendors & CO's automatically from CCR**

Integrated Acquisition



Cont. Integrated Acquisition Environment - Benefits for the CO

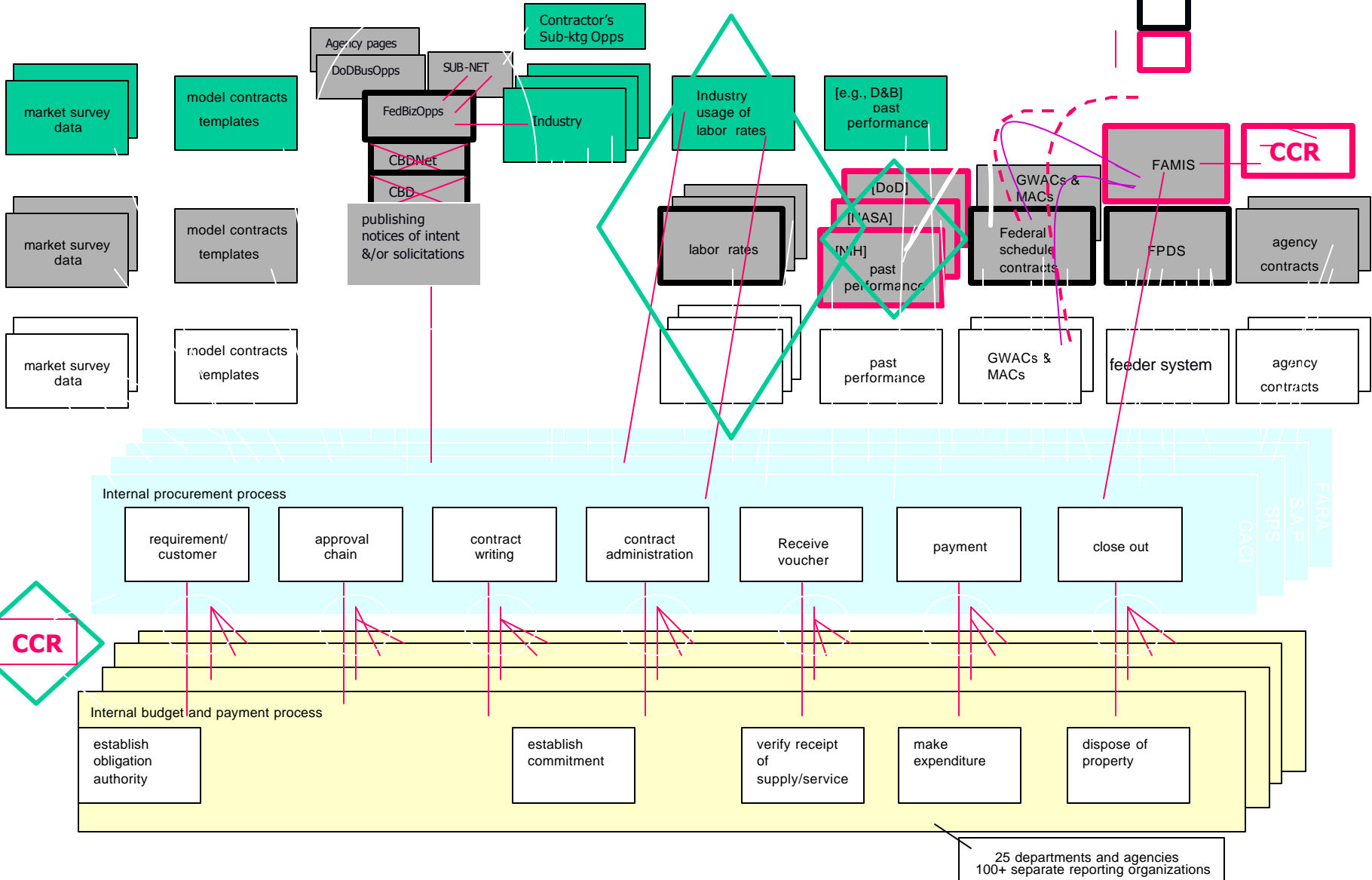
- Vendors
 - Complete admin profile (name, address, POC's, etc.) (DoD, CCR)
 - EFT data (DoD, CCR)
 - Past Performance history (DoD, Past Performance Information Review System, PPIRS)
 - Debtor List (FMS, CCR)
 - Debarred/suspended vendors (Excluded Parties list, GSA)
 - EEO compliance (DOL)
 - Socio-economic certifications & status (SBA, PRONet)
 - Representations & Certifications
 - Associated labor rates
 - Current Government contracts
 - Current Government grants
 - Current subcontracting opportunities
 - Dun & Bradstreet report
 - Past Government contracts
 - Past Government grants

Integrated Acquisition Environment - Benefits for the CO

- Pre-populate all government procurement forms
- Pre-populate contract writing system documents

E-Procurement Progress

revised 12/5/01



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Federal Business Opportunities

FedBizOpps

FBO



What is it?

- **The GPE - Government Point of Entry for doing procurement business with the government**
- **Located at www.fedbizopps.gov**
- **Maintained by GSA; controlled by a GSA Project Team answering to an Interdepartmental User Group**
- **Gives vendors a single location to obtain all federal procurement actions required to be synopsisized by the FAR**
- **Offers vendors automatic email notifications of business opportunities**
- **Helps “level the playing field” for small businesses**

Background

- **Derived from a NASA system of the mid-1990's**
- **Sponsored by the Interagency Acquisition Internet Council**
- **Became statutory 10/1/01**
- **CDB or CBDNet extinct as of 1/02**
- **All federal government must use for synopsis AND solicitation posting (or indexing)**
- **May be used for simplified acquisitions**
- **Funded by GSA/FSS and participating agencies**

Some Features & Stats

- **24/7/365**
- **Web-based, JAVA code**
- **Full Text Search**
- **Prime Posting of Subcontracting Opportunities**
- **Statistics Drill Down**
- **Search enhancements**
- **Stats - March 2002**
 - **16 million hits**
 - **156,000 registered vendors**
 - **19,000 federal buyers**

Market Research Use

- **ONLY need to enter your email address or use full text search**
- **Locate synopses/solicitations so you can**
 - develop similar ones
 - collaborate with another agency on a joint requirement
- **Receive automatic email notices for selected organizations or Product Service Classifications**
 - to develop similar ones
 - to collaborate with named points-of-contact or experts
- **Draft solicitation postings**
- **RFI postings**

Future Enhancements

- **Interested vendor lists (7/02)**
- **Online buyer stats (7/02)**
- **Combined synopsis/solicitation notice (7/02)**
- **NAICS code data fields**
- **Links to FAMIS, CCR, PRONet, Past performance data bases, etc.**

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