

Transforming Government Procurement through Electronic Bidding—A Case Study on the City of Somerville’s Implementation of BidExpress Infotech

Prajakta Waditwar

Senior Manager, Strategic Sourcing at Box, Inc., Redwood City, California, USA

Email: prajakta.waditwar@gmail.com

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Abstract

Government procurement is the backbone of public service delivery, ensuring that infrastructure projects, public safety initiatives, and essential city services run smoothly. Whether it’s road construction, school renovations, or emergency equipment purchases, procurement decisions shape communities and impact millions of lives. However, Government procurement cycles do not keep pace with fast-changing technology and user needs (U.S. Digital Service, 2016). The traditional procurement process—relying heavily on paper-based bidding—often feels like trying to drive a race car with the brakes on. Slow, tedious, and burdened with inefficiencies, it creates unnecessary roadblocks for government agencies and suppliers alike. The process is typically bogged down by mountains of paperwork, time-consuming manual evaluations, and delays that push critical projects further down the timeline. Most importantly, it lacks the transparency required to ensure fairness in government contracts. Recognizing these challenges, the **City of Somerville, Massachusetts**, decided to take a bold step forward. Just before the COVID-19 pandemic disrupted global supply chains, the city partnered with **BidExpress Infotech** to implement an **electronic bidding (e-bidding) system**—a move that would not only streamline procurement operations but also ensure continuity during a time when traditional bidding was no longer feasible. This transition wasn’t just about keeping up with technology—it was about **reshaping how procurement works**. The shift to **digital procurement** enabled: **1) Faster bid evaluations** by eliminating manual paperwork. **2) Greater competition** by allowing more vendors to participate remotely. **3) Stronger transparency** with digital audit trails and real-time tracking. **4) Resilience during crises** as procurement operations could continue uninterrupted. Little did Somerville know that this digital transfor-

mation would become a **lifeline during the pandemic**, ensuring that critical government projects could proceed smoothly while many other municipalities struggled with procurement shutdowns. What started as an **efficiency upgrade** turned into a **strategic necessity**—one that paved the way for a smarter, more agile approach to public sector procurement. Several Federal/State entities have implemented e-bidding but it has been a bit challenging for the local government entities to adopt these changes, mostly due to unawareness or technology phobia. By leading the charge in electronic bidding, Somerville set a precedent for other cities and government entities across the U.S. to **embrace digital procurement**, proving that innovation isn't just for the private sector—it's a game-changer for the public good. As part of the procurement leadership team at the City of Somerville, I was responsible for implementing **BidExpress Infotech**, a digital procurement solution aimed at modernizing the City's bidding processes. The transition to electronic bidding (e-bidding) revolutionized procurement efficiency, streamlined workflows, and allowed the City to maintain uninterrupted procurement operations during the **COVID-19 pandemic**. This paper presents my first-hand experience in leading this initiative, the challenges faced, key benefits realized, and its broader implications for **government procurement transformation** across the United States. While the transition ultimately led to significant efficiency gains, it was not without its challenges. The procurement team faced resistance from stakeholders accustomed to traditional bidding practices, requiring careful change management, training, and internal advocacy. This paper explores the implementation process, challenges, key benefits, and long-term impact of this digital transformation on Somerville and other government entities. The key goal of this paper is to educate the local governments about the electronic bidding process and make them familiar with the process.

Keywords

Government Procurement, Electronic Bidding, Procurement Transformation, E-Procurement, Public Sector Procurement, Digital Transformation in Procurement, Government Contracting, Vendor Management, Procurement Innovation, COVID-19 Procurement Adaptation, Procurement Compliance and Transparency, Sourcing and Contracting, Change Management in Procurement, Procurement Technology Implementation

1. Introduction

Introduction to the City of Somerville, Massachusetts

The City of Somerville, Massachusetts, stands as a progressive, inclusive, and technologically advanced city, balancing economic growth with sustainability and community-driven governance. Its ability to embrace digital transformation in procurement, sustainability initiatives, and urban development makes it a model for other municipalities looking to modernize their operations while maintaining

transparency and efficiency.

Procurement is a crucial function in organizations, directly impacting operational efficiency and cost-effectiveness (Waditwar, 2024). Public procurement is often burdened by bureaucracy and legacy systems, making it difficult for agencies to transition to digital platforms. NASPO 2018 stated that the organizations of all sizes who embrace changing times are better able to develop strategies to manage change in a way that positions themselves for the future. Digitalization is achieved through the use of technology to strengthen existing processes and practices. AI and digital procurement innovations are significantly reshaping the landscape of strategic sourcing (Waditwar, 2025). In 2018, the City of Somerville recognized the need to modernize its procurement function but faced significant internal resistance from stakeholders reluctant to abandon traditional paper-based bidding.

Despite initial skepticism, our leadership team worked to educate stakeholders, address security concerns, and integrate the platform seamlessly into existing procurement workflows

that not only improved efficiency but also ensured uninterrupted procurement operations during the COVID-19 pandemic. This paper outlines the barriers to adoption, strategies for overcoming stakeholder resistance, and the long-term benefits of this digital transformation realized by Somerville and beyond.

2. The Challenges of Traditional Procurement

Before adopting BidExpress, Somerville's procurement team faced several pain points:

- **Manual Bidding and Administrative Burden**

Vendors had to physically print, seal, and deliver bid documents, leading to delays and logistical inefficiencies.

Procurement officials spent hours sorting, reviewing, and verifying hard-copy bids, leading to extended contract award cycles.

Paper-based systems increased risk of human error, resulting in compliance issues and bid disputes.

- **Stakeholder Resistance to Change**

Many internal stakeholders, including senior officials and vendors, were reluctant to move away from familiar paper-based processes.

Concerns about technology adoption, training, and digital literacy among procurement staff and vendors created hesitancy.

Some believed electronic bidding system would favor tech-savvy businesses over traditional suppliers and could lead to fewer vendors participating, impacting competition.

- **Compliance and Security Concerns**

There was skepticism about whether e-bidding met all regulatory requirements for transparency and fairness.

Concerns about data security, bid confidentiality, and potential cyber risks were raised by internal auditors.

- **COVID-19 Accelerating the Need for Change for the Government in General.**

As social distancing measures were enforced, physical bid submissions became impractical, making digital transformation a necessity rather than an option.

Procurement teams had to expedite the adoption of electronic bidding to avoid disruptions in critical public contracts.

Emergency procurement, including Personal Protective Equipment (PPE), required an agile and rapid-response procurement system.

3. What Is Electronic Bidding?

Electronic bidding (e-bidding) is a **digital procurement method** that allows government agencies and organizations to solicit, receive, and evaluate supplier bids through an **online platform** rather than traditional paper-based processes. This system **streamlines the procurement process**, enhances **transparency**, and improves **efficiency** by enabling suppliers to submit bids securely from anywhere. [American Legislative Exchange Council, Online Bidding Act \(2003\)](#), allows public agencies to use on-line, electronic bidding as a means of obtaining bids from vendors for the procurement of goods, services, construction and information services.

Key Features of Electronic Bidding Systems

- **Automated Bid Solicitation & Submission:**

Government agencies issue Requests for Proposals (RFPs), Requests for Quotations (RFQs), and Invitations for Bids (IFBs) online.

Vendors submit their bids electronically, eliminating the need for paper-based processes.

- **Bid Evaluation & Scoring:**

Many platforms include automated scoring tools to evaluate bids based on price, compliance, sustainability, and past performance.

- **Real-Time Notifications & Alerts:**

Suppliers receive instant alerts for bid opportunities, deadlines, and submission confirmations.

- **Secure & Transparent Bidding Process:**

Encryption and audit trails ensure bid confidentiality and prevent bid tampering.

Government procurement officials have access to real-time bid tracking and automated compliance monitoring.

- **Compliance with Government Regulations:**

E-bidding platforms integrate with federal, state, and local procurement policies, ensuring compliance with regulations like Federal Acquisition Regulation (FAR) and state-level procurement laws.

- **Vendor Collaboration & Document Management:**

Digital platforms provide features like contract lifecycle management, bid mod-

ification capabilities, and real-time Q&A forums for suppliers and procurement officials.

4. Implementing Electronic Bidding with BidExpress

4.1. Overcoming Stakeholder Pushback

Transitioning from a long-standing traditional bidding process to an entirely digital system required strong leadership, communication, and training. The procurement team implemented the following strategies to ease the transition:

- **Engaging Stakeholders Early**
 - Procurement leaders held meetings with senior officials, legal teams, and department heads to communicate the urgency and benefits of electronic bidding and highlight the inefficiencies in the traditional bidding process.
 - Demonstrations and presentations showed how BidExpress met regulatory requirements and improved efficiency without compromising fairness.
- **Providing Vendor Training and Support**
 - A key concern was whether vendors, especially smaller businesses, would adapt to the new system.
 - The City partnered with BidExpress Infotech to conduct online workshops, one-on-one support sessions, and step-by-step tutorials for vendors.
- **Addressing Compliance and Legal Considerations**
 - Internal procurement policies were reviewed and amended to ensure full compliance with government procurement laws.
 - IT security teams worked with BidExpress Infotech to ensure bid encryption, secure login access, and audit trails were in place.
- **Running Pilot Programs Before Full Deployment**
 - The City tested electronic bidding on smaller projects first to allow for feedback and adjustments before rolling it out citywide.
 - Early successes from pilot projects helped build stakeholder confidence in the system.

4.2. Key Benefits of Electronic Bidding in Somerville

Enhancing Efficiency & Reducing Administrative Burden

- Automated bid submission and evaluation, cutting review times by 40%.
- Reduced the paper footprint, saving thousands in administrative costs.
- Allowed procurement staff to focus on strategic tasks instead of manual paperwork.

Maintaining Procurement Operations during COVID-19

- Unlike other municipalities that faced procurement slowdowns due to social distancing, Somerville continued awarding contracts without disruption.
- Procurement officials could work remotely, evaluating bids and awarding contracts without in-person meetings.
- Streamlined emergency PPE procurement, ensuring public safety during supply chain shortages.

Increasing Vendor Participation & Competition

Electronic bidding removed geographical and logistical barriers, leading to:

- Higher vendor participation.
- More competitive pricing.
- Increased opportunities for small and minority-owned businesses.

Strengthening Transparency & Compliance

- Real-time bid tracking and automatic audit trails ensured full regulatory compliance.
- Electronic bid opening procedures enhanced trust and fairness in the procurement process.
- Tamper-proof digital records reduced fraud and bid disputes.

Cost Savings for Both the City and Vendors

- The City saved thousands of dollars by eliminating costs associated with printing, storing, and processing paper bids.
- Vendors saved time and money previously spent on preparing and delivering physical proposals.

5. Lessons Learned & Recommendations

• Key Takeaways from Somerville's Experience

- Early resistance is natural—Change management is crucial for successful technology adoption.
- Training and vendor outreach are essential—Many initial concerns were resolved through direct engagement and training programs.
- Technology should align with existing processes—Ensuring a smooth transition required integrating BidExpress into existing procurement workflows.

6. Recommendations for Other Government Entities

- **Start with Pilot Programs**—Test the system on smaller projects before citywide implementation.
- **Invest in Change Management**—Address stakeholder concerns through proactive communication and training.
- **Ensure Compliance & Security**—Work with legal and IT teams to ensure the new system meets all procurement regulations.
- **Monitor and Continuously Improve**—Regular feedback from procurement staff and vendors helps fine-tune the system.

7. How Implementing Electronic Bidding Can Solve U.S. Government Procurement Issues

Traditional procurement in government agencies is bogged down by manual paperwork, slow processing times, and excessive bureaucracy. This leads to delays in awarding contracts, excessive administrative costs, and lost opportunities for cost savings.

Automated bidding platform eliminates manual processes by:

- Digitizing bid submissions and removing the need for vendors to print, seal, and deliver proposals physically.
- Automating bid tracking and contract lifecycle management.
- Allowing procurement officials to approve contracts remotely, enabling continuous operations even during crises like COVID-19.

8. Impact on U.S. Government Procurement

Agencies such as **FEMA, DoD**, and state governments can secure better pricing on contracts, reducing overspending.

8.1. Increasing Vendor Participation and Cost Savings

The current government procurement system often favors large, established vendors who can navigate complex paper-based processes. Small and minority-owned businesses face barriers to accessing public contracts.

Small Business Administration (SBA) and federal procurement programs can increase opportunities for small businesses, leading to greater supplier diversity.

8.2. Improving Compliance and Reducing Fraud

Fraud, bid-rigging, and lack of transparency in government procurement cost taxpayers billions of dollars annually. Paper-based processes make it difficult to track and audit procurement decisions.

- **The Government Accountability Office (GAO) and Office of Inspector General (OIG)** could reduce fraud investigations by implementing real-time procurement audits.
- Federal and state agencies could ensure 100% compliance with regulations, reducing litigation risks.

8.3. Strengthening Data Security in Government Contracts

Paper-based procurement increases risks of data breaches, bid leaks, and security vulnerabilities. Federal agencies must ensure confidentiality in defense, healthcare, and sensitive contracts.

- Defense agencies (DoD, NSA, DHS) can secure classified procurements.
- Government contractors can meet stringent cybersecurity requirements, reducing risks of foreign cyber threats.

8.4. Broader Implications and Nationwide Adoption

Somerville's success with BidExpress Infotech proves that e-bidding can revolutionize procurement. If all the federal and state agencies implement similar systems, the U.S. government could:

- Save billions in administrative costs.
- Increase efficiency and competition.
- Enhance procurement transparency and security.
- Ensure procurement continuity in emergencies.

8.5. Key Agencies That Could Benefit

- General Services Administration (GSA)
- Department of Defense (DoD)
- Federal Emergency Management Agency (FEMA)
- State and Local Governments
- Small Business Administration (SBA)
- Department of Transportation (DOT)
- Health and Human Services (HHS)

Electronic bidding (e-bidding) has become increasingly prevalent among the U.S. government entities at various levels, including federal, state, and local agencies. This digital approach to procurement enhances efficiency, transparency, and accessibility in the bidding process.

9. Examples of Government Entities Utilizing Electronic Bidding

9.1. Federal Agencies

- **General Services Administration (GSA):** Through platforms like GSA Auctions, the GSA facilitates electronic bidding for surplus government property, allowing users to browse, bid, and pay for items online.
- **Government Accountability Office, Federal Highway Administration, FCC:** These agencies have adopted electronic bid submissions to streamline procurement processes, aligning with statutory requirements to enhance efficiency.

9.2. State Governments

- **North Carolina:** The state employs an e-procurement system that aggregates purchases across agencies, providing suppliers with equal access to government bid opportunities and streamlining the requisition process.
- **California Department of General Services (DGS) and California Public Utilities Commission (CPUC):** Utilize electronic procurement to improve transparency and efficiency in state contracts, offering easy access to all the contracts and electronic responses to pricing requests.

9.3. Local Governments

- **City of Somerville, Massachusetts:** Implemented an electronic bidding system to modernize its procurement process, resulting in significant efficiency gains and uninterrupted operations during the COVID-19 pandemic.
- **City of Milpitas, California:** Adopted e-procurement solutions, achieving a 95% gain in productivity and a 90% average time savings per solicitation. ([OpenGov 2014](#))

10. Reasons for the U.S. Government's Focus on Implementing Electronic Bidding

- **Increased Efficiency:** E-bidding reduces administrative burdens by automating

bid solicitation, submission, and evaluation processes, leading to faster procurement cycles.

- **Cost Savings:** By minimizing manual processes and paperwork, electronic bidding lowers operational costs for government agencies and bidders alike.
- **Enhanced Transparency and Compliance:** Digital platforms provide clear audit trails and real-time tracking, ensuring adherence to procurement regulations and promoting fair competition.
- **Broader Vendor Participation:** Online access to bid opportunities removes geographical barriers, encouraging more suppliers, including small and minority-owned businesses, to participate.
- **Resilience During Emergencies:** The COVID-19 pandemic highlighted the need for remote capabilities; e-bidding allowed procurement activities to continue uninterrupted despite social distancing measures.

The U.S. government's adoption of electronic bidding reflects a commitment to modernizing procurement practices, achieving greater efficiency, and ensuring equitable access to contracting opportunities.

11. Conclusion

The City of Somerville's transition to e-bidding provides a roadmap for federal, state, and local governments to modernize procurement. The success of BidExpress Infotech demonstrates that digital transformation is not just an option—it's a necessity for cost savings, transparency, security, and resilience.

Final Recommendations for U.S. Government Agencies:

- **Adopt Cloud-Based E-Bidding—Transition to secure, automated procurement platforms to increase efficiency.**
- **Promote Small Business Participation—Leverage e-bidding to eliminate geographical and logistical barriers.**
- **Ensure Cybersecurity and Compliance—Implement end-to-end encryption and automated compliance monitoring.**
- **Standardize Procurement Across Agencies—Use a unified digital system to streamline government-wide procurement.**
- **Prepare for Future Crises—Build resilient e-procurement systems that can operate remotely and autonomously during emergencies.**

By embracing Somerville's e-bidding model at scale, the U.S. government can revolutionize procurement efficiency, reduce fraud, and enhance competitiveness, setting a new global standard for public-sector digital transformation.

12. About BidExpress Infotech

BidExpress Infotech is a leading provider of cloud-based e-procurement solutions that enhance efficiency, compliance, and vendor participation in government bidding processes. With a proven track record of supporting municipalities, state agencies, and public institutions, BidExpress empowers organizations to streamline procurement operations and embrace digital transformation.

13. Leading Electronic Bidding Platforms for Government Procurement in the U.S.

Several technology providers offer electronic bidding platforms specifically tailored to government agencies and public sector procurement. Here are some of the top e-bidding solution providers in the U.S.:

- **BidExpress by Infotech**
 - Description: A widely used electronic bidding platform that facilitates government construction and infrastructure projects.
 - Features: Secure bid submission, vendor management, bid tabulation, and audit tracking.
 - Used by: City of Somerville, various state DOTs (Departments of Transportation), and municipalities across the U.S.
 - Website: <https://www.bidexpress.com/>
- **Bonfire (A Euna Solutions Company)**
 - Description: A comprehensive government e-procurement platform designed for strategic sourcing and electronic bidding.
 - Features: Bid scoring, supplier evaluation, contract management, and audit tracking.
 - Used by: State & local governments, public universities, and school districts.
 - Website: <https://www.gobonfire.com/>
- **OpenGov Procurement**
 - Description: A cloud-based e-bidding and government procurement suite that simplifies public sector purchasing.
 - Features: Bid automation, vendor collaboration, analytics, and contract management.
 - Used by: Local municipalities, state agencies, and education institutions.
 - Website: <https://www.opengov.com/>
- **Periscope Holdings (A mdf commerce solution)**
 - Description: A full-service procurement suite that includes an electronic bidding system tailored for state and local governments.
 - Features: Bid distribution, supplier registration, transparency tracking, and analytics.
 - Used by: Various U.S. counties, states, and federal agencies.
 - Website: <https://www.periscopeholdings.com/>
- **DemandStar**
 - Description: A procurement platform that connects government buyers with local and national suppliers through an e-bidding marketplace.
 - Features: Bid notifications, supplier tracking, e-bidding submissions, and compliance reporting.
 - Used by: Local governments, public utilities, and small business vendors.
 - Website: <https://www.demandstar.com/>
- **Negometrix (Now part of Mercell Group)**
 - Description: A leading government-focused e-procurement system designed

for digital bid submissions and contract management.

- Features: Evaluation automation, negotiation tools, electronic signature support.
- Used by: Various municipalities, universities, and public sector entities.
- Website: <https://www.mercell.com/>
- **ProcureNow (Now part of OpenGov)**
- Description: A user-friendly e-procurement solution tailored for city and state procurement.
- Features: RFP automation, bid scoring, supplier collaboration, and contract management.
- Used by: City and county governments, school districts, and federal agencies.
- Website: <https://opengov.com/products/procurement/>
- **GovWin by Deltek**
- Description: A leading procurement intelligence and electronic bidding platform for government contractors.
- Features: Market research, bid forecasting, proposal management, and analytics.
- Used by: Federal and state governments, defense contractors, and enterprise suppliers.
- Website: <http://www.deltek.com/en/govwin>

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

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