



## Best Practice: Electronic Buildings Application System

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**CITY: NEW YORK CITY**

**POLICY AREAS: TECHNOLOGY; BUILDINGS ADMINISTRATION**

### BEST PRACTICE

**Buildings Scan and Capture Application Network (B-SCAN)** is an electronic document management system developed by the New York City Department of Buildings (DOB) to streamline the job filing process and the quality of application review, enabling all staff to view documents and building plans simultaneously through the Buildings internet system (BISWEB).

### ISSUE

Before the launch of B-SCAN, there was no uniform process across the boroughs for receiving or recording receipt of required documents for job filing applications. Currently, the Department of Buildings receives approximately 500,000 physical pages of job filing applications and building plans annually. The public can check out folders and leave the premises with them, often folders and/or documents are lost and documents can potentially be altered, making it difficult to manage the accessibility and reliability of the documents. Furthermore, because the construction process is often a multi-year endeavor, the access to and physical handling of folders and documents contributes to this problem of managing and safeguarding the documents.

### GOALS AND OBJECTIVES

The goals of B-SCAN are to streamline the handling of job documents for all job filings (including New Buildings, Alterations 1, 2, and 3 Place of Assembly, Demolitions, Sub-divisions, and Signs, and Alteration Repair Applications) and make documents readily available after filing. The following are objectives to accomplish these goals:

- Documents will be scanned upon acceptance and Buildings Information System (BIS) entry, reducing paper handling and document loss.
- Once scanned, documents are available via BISWEB, reducing applicant visits or calls to borough offices.
- Document handling will be standardized among boroughs, providing consistent service to applicants.
- Document intake will be reconciled, confirming BIS items with their associated scanned documents.
- Through electronic submission, some documents can be submitted remotely for the Department of Buildings review and approval.
- Applicants will have the ability to upload some required documents through eFiling. It will also provide our staff with the ability to approve and reject uploaded documents and update BIS when documents are approved.

### IMPLEMENTATION

In 2007, B-SCAN was initially launched for documents only. The 2<sup>nd</sup> Phase of B-SCAN, launched in 2009, included Plan scanning as well as automated document submission components. An infrastructure upgrade was deployed in May 2010 to keep the software in compliance. B-SCAN's development team included a core group of up to 15 people, comprised of in-house staff, consultants and members of the Department of Information Technology and Telecommunications. Throughout the project's lifecycle, additional operational and technical staff were also brought in as experts. During implementation, the project team grew to include 6 staff per borough, brought in to validate process and train their own staff.

The following is the implementation strategy for B-SCAN:

- Phased implementation by borough - smallest to largest.
- Streamlined and standardized internal operational processes, which included omitting unnecessary steps.

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- B-SCAN staff trained to reconcile all scanned documents with BIS entries during the next business day to identify discrepancies.
- B-SCAN staff trained to review and accept/reject electronically submitted documents from external applicants as well as some other agencies including the Fire Department (FDNY).
- Now applicants only need to submit one original Application Document. (The only exceptions are the Department of Environmental Protection and Equipment Use Cards which will require 2 copies.)
- Documents can now be sorted by name and date on BISWEB.
- Perform outreach to external agencies (for example, the Department of Transportation, and FDNY) to have them use BIS to confirm data, rather than submitting duplicate paperwork.
- After the program's "go live" date, B-SCAN team continues to work with industry to understand and resolve questions and concerns.
- All documents and building plans associated with new jobs pre-filed after B-SCAN's "go live" date will be scanned.
- Future phases include deployment of B-SCAN to Central Inspections teams (which include different aspects of buildings such as, Electrical, Elevators, Boilers, and Facades).

### COST

The current cost for B-SCAN hardware, software and consulting services is approximately \$14,000,000 USD.

### RESULTS AND EVALUATION

In the development and implementation of this electronic document management system, the city gained the following results:

- Tremendous efficiency and transparency have been gained through B-SCAN, vastly improving the Department's ability to serve the public. In addition, agencies that depend on B-SCAN documentation can see original documents online and no longer require the paper documents.
- Filed documents are scanned once or electronically submitted and made available electronically to both borough staff during the approval process and to applicants through the B-SCAN web portal (which has over 400,000 hits daily). While most documents are available online, for security purposes, building plans can only be viewed by internal staff. Applicants must come to the borough office (as they did prior to B-SCAN) to view building plans. However, the documents available on B-SCAN are online permanently, securely, and almost instantly.
- As a result of the implementation of B-SCAN, key business improvements include:
  - Online access to job filing documentation has reduced the amount of time applicants spend at DOB by 20%.
  - Reduced on-site paper storage by 30% per borough.
  - Prior on-site retrieval of documents, which formerly resulted in 2,000 man hours per year, has been reduced by 98%.
  - Productivity and consistency through online review of applications by borough staff has increased by 10%.
  - The ability of management to track filing documentation and processing times has greatly increased management's control of the process.
  - 30% reduction in the effort to resolve discrepancies between documentation submitted to DOB and documentation recorded by DOB.

### TIMELINE



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2007	B-SCAN launched
2009	Second Phase of B-SCAN launched
May 2010	Infrastructure upgrade deployed

### LEGISLATION

There is no legislation specifically applicable with this program.

### LESSONS LEARNED

As a result of B-SCAN information gathering, development, and implementation, the Department of Buildings learned the following lessons:

- Clearer understanding of which documents and building plans need to be scanned.
- Clearer understanding of extra time needed for operational procedures.
- Developed requests for BIS enhancements:
  - Pro Cert / Plan Exam Process Consistency – Data Entry and Research (DEAR) staff have been given permission to process certification of controlled inspections required prior to approval.
  - Code Adherence – If DOB does not receive documents that are required prior to approval, BIS will prevent approval of the job.
  - Consistent Document Submission – Redesigning the Pro Cert Checklist to ensure that required items can only be received at a single time. Redesigning BIS to prohibit multiple submissions of a required item.
  - Intake Consistency – Eliminate the redundancy in BIS between the receipt of forms and required items. Many discretionary items will be incorporated as required items.

### TRANSFERABILITY

B-SCAN can be transferred to other Department of Buildings processes and be used by other New York City agencies, such as the FDNY.

Additionally, any city facing difficulty organizing and managing job filing documents or document submission can benefit from learning about B-SCAN.

### CONTACTS

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