



# Ballot on Demand® Solution

## *BOD Printing System*

ES&S' secure Ballot on Demand® (BOD) solution consolidates commercially available printing components with ES&S proprietary software. This proven system automates and streamlines ballot production and distribution, offering flexible options for on-demand ballot printing needs. The system includes a printer, laptop and BOD software.



## FEATURES AND BENEFITS

### Automated ballot management

- Removes the risk of ballot shortages
- Ensures the correct ballot style for every voter
- Eliminates ballot picking and pulling
- Reduces staffing needs for ballot processing and inventory
- Eliminates the need to organize and store mass quantities of printed ballots
- No Election Day delays for ballot deliveries

### Multi-purpose paper trays

- Enables efficient printing of two-sided ballots
- Support ballot lengths up to 19-inches

### Proprietary software

- Overprint/overlay capabilities. BOD software can overprint special text or images onto a completed PDF to meet each jurisdiction's unique needs.

### System integration

- Integrates with voter registration systems, providing an easy-to-use interface

### Specifications

H x W x D: 15.3" x 17.2" x 23.8"

Weight: 68 lbs

Tray capacity: 530 sheets per tray

Pages per minute:  
34 ppm (color) / 36 ppm (B&W)

Page length supported:  
11", 14", 17", 19"

Prints: single and double-sided

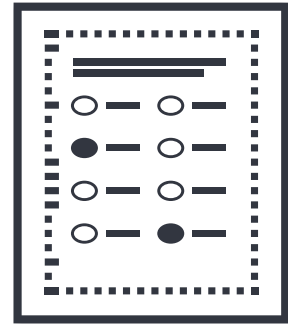
Power consumption:  
600 watts (typical) / 1300 watts (max)  
Normal outlet

Life expectancy  
(8.5" x 11" single-side pages):  
Toner cartridge: 11,000 pages  
Drum: 20,000 pages

## BALLOT PRINTING

Our Ballot on Demand solution enables election staff to print the exact number of ballots needed for each precinct of any allowable ballot style based on voter turnout. This increases efficiency and reduces cost and waste.

When integrated with VR workstations or electronic pollbooks, the system will automatically accept individual ballot requests and print the proper ballot for each request. This eliminates the need to pre-print, store and inventory ballots at polling locations, and ensures the correct ballot is printed for each voter.



## BALLOT SECURITY



### Encryption, Hash Validation and Digital Signatures

All ballot PDFs stored on the system for printing are encrypted and can only be printed via the BOD software on the BOD printer. Should unauthorized data somehow be introduced into the system, a user would not be able to associate this data or edit the pre-defined job without logging in as an administrator.



### Audit Logs

The BOD Print Service software generates an audit log of all system activities, including system access by administrators. Once an operator is logged into the system, the BOD will report on all printing activity by that operator. The audit log is timestamped, and each individual activity is identified by the administrator login name.



### System Application Controls

The BOD system is hardened, including only the services, applications, utilities and settings required to successfully operate the print service program and print ballots. System functions are executable during election events, in the manner and order intended by election officials performing their duties.



### Physical and System Access Controls

The Ballot on Demand laptop and printer can be secured in a lockable case and the laptop is secured with a pressure-sensitive, tamper-evident seal. These physical locks and seals are a first line of defense and minimize the effect of any unauthorized access.

The operating software provides security access controls to limit and detect access to critical system components, guarding against system integrity loss and availability. Access codes are required for system access during equipment preparation, testing and operation. These safeguards cannot be bypassed or deactivated during system installation or operation, maintaining the integrity of the election data and audit record.

Two levels of password protection for the BOD laptop exist: Microsoft Windows login and BOD print service login. Should unauthorized data somehow be introduced into the system, a user would not be able to associate this data or edit the pre-defined job without logging in as an administrator.