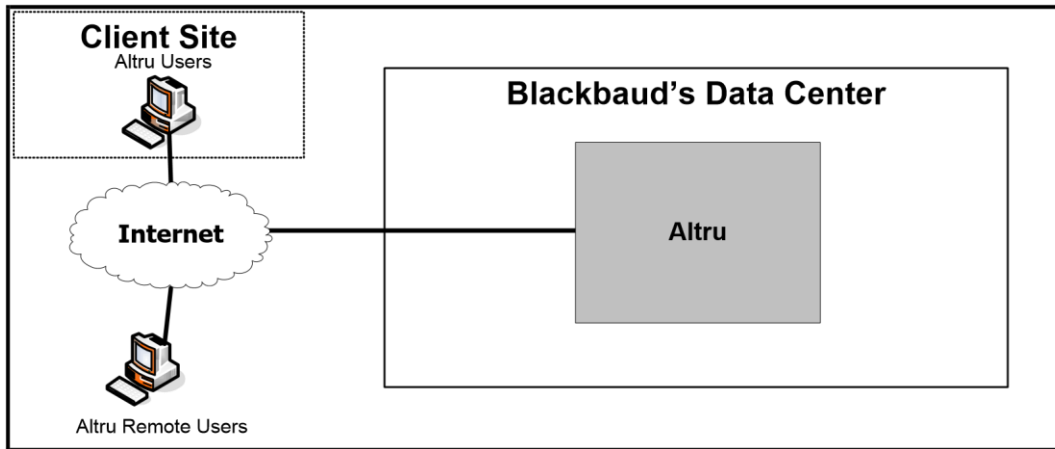


Blackbaud Application Hosting for **Altru**



workstation recommendations	
operating system	<p>For Windows operating systems, Altru supports Internet Explorer 9 and higher, and the latest version of Firefox Chrome, or Edge. Windows operating systems require .Net Framework 2.0 SP1 or higher.</p> <p>For Mac operating systems, Altru supports the latest version of Safari, Chrome, and Firefox.</p> <p>Blackbaud recommends using the latest available version of your chosen browser.</p> <p>Note: For printing tickets and sales documents and for automatic cash drawer functionality, Altru requires Internet Explorer 9 or higher. For Windows 8 & 10 operating systems, the desktop version of Internet Explorer 10 or Internet Explorer 11 must be used. (Note: Windows 10 comes with both Internet Explorer and Edge. Internet Explorer 11 should be used when printable sales documents are needed.)</p> <p>Browser Note: For all browsers, enable JavaScript, cookies, and TLS 1.1 and TLS 1.2. Browsers that don't support TLS 1.1 or TLS 1.2 won't be able to access Altru after we deactivate TLS 1.0. Deactivation is scheduled, but not guaranteed, for the first and second quarters of 2016.</p>
processor (CPU)	Intel Pentium/Celeron family, 2 GHz clock speed or faster.
memory (RAM)	Minimum requirements for your operating system will create a minimum performance level, recommended 4GB or higher for better performance.
display	SVGA (1024 x 768 minimum)
internet	
internet connection	<p>Connection via HTTPS to the application web server. HTTPS traffic requires that both ports 443 and 80 are open for outbound and inbound activity.</p> <p>Note: If using a Firewall, verify access to the Altru URL is allowed – https://login.blackbaudhosting.com/</p>
connectivity	<p>We recommend that your local internet connection be of the fastest/highest quality that can be afforded. We also recommend a premium support contract with your ISP, along with any available connectivity monitoring for that service.</p> <p>Broadband Business Grade cable modem or DSL or higher with a minimum of 10 Mbps download and upload at each workstation.</p> <p>* Blackbaud reserves the right to suggest additional specifications based on your working environment. Bandwidth requirements vary from organization to organization based on their use patterns. The best way to determine your</p>

	bandwidth need is to measure your use, and document patterns. There are calculators available online to help estimate.
other compatibility information	
credit card processing	Altru supports card present, card not present and batch transaction processing via two gateway options: CyberSource and Blackbaud Merchant Services . Clients choosing to acquire a CyberSource merchant account should contact Blackbaud regarding our Blackbaud CyberSource Gateway & Interconnect offering.
card readers	Only magnetic card swipes using keyboard emulation are supported for use at your workstations. Other HID compliant card swipes that do not use keyboard emulation are not supported.
keyboards	Altru works with most conventional keyboards including programmable POS keyboards such as the Cherry 7000 Series.
bar code scanners	A bar code reader capable of reading a 12-point 3 of 9 barcode font is required to support barcode scanning. The scanner must be recognized by the operating system as a keyboard input device and configured to enter a carriage return at the end. To configure the carriage return, check the user manual or manufacturer of the scanner.
printers	<p>Altru supports Datamax (S-Class family) and BOCA (Lemur line) ticket printers when using thermal ticket stock such as 2" x 5 1/2". Tickets may also be printed to a receipt printer. Results with other printers may vary.</p> <p>Altru supports Epson (TM family) and Star Micronics (TSP family) 80mm receipt printers. Examples of printers currently being used are: Epson TM-T20, Epson TM88IV, Epson TM88V and Star TSP100-24. To enable opening the cash drawer automatically, the cash drawer must connect directly to the printer.</p> <p>Note: Updated printer drivers, available directly from the printer or operating system manufacturer, may be necessary for compatibility with Blackbaud products.</p> <p>Note: For printing tickets and sales documents and for automatic cash drawer functionality, Altru requires Internet Explorer 9 or higher. For Windows 8 & 10 operating systems, the desktop version of Internet Explorer 10 or Internet Explorer 11 must be used. (Note: Windows 10 comes with both Internet Explorer and Edge. Internet Explorer 11 should be used when printable sales documents are needed.)</p>
cash drawers	<p>Altru supports cash drawers that connect directly to the receipt printer.</p> <p>Note: For automatic cash drawer support, Altru requires Internet Explorer 9 or higher. For Windows 8 & 10 operating systems, the desktop version of Internet Explorer 10 or Internet Explorer 11 must be used.</p>
Microsoft Office	Altru is compatible with Microsoft Office 2007 and higher. Earlier versions of Microsoft Office will require a Microsoft Compatibility Pack.
public/patron browser	<p>Altru Web Forms are compatible with W3C-compliant browsers (http://www.w3.org). Altru Web Forms support a Document Type Declaration of XHTML 1.0 Transitional. Depending on your web design, the look and feel of your website may vary across different client browsers.</p> <p>Note: For all browsers, enable JavaScript, cookies, and TLS 1.1 and TLS 1.2. Browsers that don't support TLS 1.1 or TLS 1.2 won't be able to access Altru after we deactivate TLS 1.0. Deactivation is scheduled, but not guaranteed, for the first and second quarters of 2016.</p> <p>For Windows operating systems, full-page functionality testing of Altru Web Forms is conducted on Internet Explorer 9 and higher and the latest version of Firefox and Chrome.</p> <p>For Mac operating systems, full-page functionality testing of Altru Web Forms is conducted on the latest version of Safari, Firefox, and Chrome.</p>

Security Recommendation

Blackbaud employs security best practices for all Blackbaud OnDemand systems, including the protection of all systems and information located at the Blackbaud Data Center, as well as communications between systems at the Blackbaud Data Center and client servers and workstations. Although Blackbaud makes every effort to ensure the security of client data, it is imperative that organizations also employ security best practices at their site(s) and on their workstations.

Recommendation Disclaimer

System recommendations are based on information available on the last updated date. They are published only as a guide and relate solely to Blackbaud software.

Performance and response time are affected by many factors related to hardware (such as RAM, processor speed, and hard disk subsystem performance), network configuration (such as NIC performance, cable type, topology, operating system, parameters, and traffic), and the database (such as size, number of concurrent users, and the type of activities each user is performing). In addition, network and workstation operating systems, third-party software products, and our own products are continuously updated with new features and options, which often place greater demands on hardware.

Blackbaud recommends the purchase of top-of-the-line equipment when possible and that organizations budget for continual upgrades to their system.

Blackbaud staff may provide limited informal guidance based on information made available. However, neither these system recommendations nor our staff's guidance constitute a guarantee of compatibility, outcome, or performance. We encourage organizations to consult their own systems staff or outside technical experts to ensure appropriate results. Comprehensive technical consulting services are available through Blackbaud. Under a separate consulting arrangement, our consultants evaluate the installation of all Blackbaud applications and recommend optimal hardware and system configuration options. Email solutions@blackbaud.com for more information.

Note: System recommendations are subject to change. Before making any purchase or installation decisions, ensure you have the latest system recommendations and check for third-party compatibility information in Knowledgebase. If you use multiple Blackbaud products, refer to the system recommendations for each product; the total recommendations may be different from what is listed above.