



## **BULATS Online Technical Specifications**

	Minimum	Recommended
Processor	Pentium® II 400 MHz	Pentium III 800 MHz or faster
RAM	256 MB	512 MB or more
Free hard drive space	2 GB	4 GB or more
Operating system	Windows® 2000 Pro	Windows XP Pro or later
Internet connection	512 kbps (per computer used)	Faster
Internet Explorer	v 7	v 8
Adobe Acrobat®	v 6	v 8
Adobe Flash Player®	v 10.1.102.64	v 10.1.102.64
Microsoft Excel	2002	Later
Other	Sound card	
	Headset with microphone	

BULATS Online is a real-time online adaptive test. As a result, the performance of the test will depend on the internet connection speed and available bandwidth at the time the test is taken. Factors such as the number of concurrent internet users on a network, other internet services running, and local ISP performance will also impact on the test performance.

We have provided two tools to help you quickly check your hardware and software suitability for BULATS Online:

Diagnostic Tool: <a href="https://www.bulats.org/diagnostic-check">www.bulats.org/diagnostic-check</a> <a href="https://www.bulats.org/bandwidth-checker">www.bulats.org/diagnostic-check</a> <a href="https://www.bulats.org/bandwidth-checker">www.bulats.org/bandwidth-checker</a> <a href=

You can download the latest versions of Flash player and Java Runtime Environment from the URLs below:

www.java.com/

http://get.adobe.com/flashplayer/

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## **BULATS Network Configuration Guidelines**

BULATS Online is an online multimedia adaptive test hosted by Cambridge Assessment in Cambridge, UK and accessed via the public internet from locations around the world.

All BULATS websites and media servers are hosted at the Cambridge Assessment data centre on the following URLs and public IP addresses:

URL	IP Address
www.bulatsonline.org	192.149.119.132
(linguaskill.bulatsonline.org)	81.144.255.132
admin.bulatsonline.org	192.149.119.136
	81.144.255.136
Fms-prd.bulatsonline.org	192.149.119.254
	81.144.255.254

The main BULATS Online application is accessed from the <a href="www.bulatsonline.org">www.bulatsonline.org</a> url. Media used within the application is accessed from the fms-prd.bulatsonline.org url.

There is a minimum bandwidth requirement of 512Kbps (per computer used) to use the BULATS online tests. An online bandwidth checker is available at the following URL: <a href="http://www.bulats.org/bandwidth-checker/">http://www.bulats.org/bandwidth-checker/</a>

**Note:** The minimum bandwidth *must* be maintained for the duration of the test and *must not* be contended. The bandwidth checker is to be used as a guide only, and a successful result does not guarantee that suitable bandwidth will be available for an entire testing session.

Due to the best-effort nature of the Internet, there is no end to end Quality of Service (QoS) guarantee from a test centre to the Cambridge Assessment data centre. Any failure on the route path between the test centre network and the Cambridge Assessment data centre during a test could cause connectivity problems and loss of service.

Network administrators experiencing problems with the BULATS service are advised to deploy QoS on their internal network to ensure the minimum bandwidth is available to the client throughout the entire duration of the test. It is recommended that QoS is applied to http (TCP 80) and https (TCP 443) connections destined to the IP addresses in the table above, in order to prioritise traffic above other non essential traffic.

Cambridge Assessment can not advise how to configure quality of service on 3<sup>rd</sup> party networks. However, the Cisco QoS design guide should provide guidance to Network Administrators using Cisco equipment and general industry standard best practices. This document is available online at the following url:

http://www.cisco.com/en/US/docs/solutions/Enterprise/WAN and MAN/QoS SRND/QoSI ntro.html