A back-to-back user agent **B2BUA** is a logical network element in SIP applications. It is a type of SIP UA that receives a SIP request, then reformulates the request, and sends it out as a new request.

**B2BUA - How it Works?**

A B2BUA agent operates between two endpoints of a phone call and divides the communication channel into two **call legs**. The B2BUA agent mediates all SIP signalling between both ends of the call, from call establishment to termination. For each call, all the control messages flow through the B2BUA, hence a service provider may implement value-added features available during the call.

In the originating call leg, the B2BUA acts as a user agent server **UAS** and processes the request as a user agent client **UAC** to the destination end, handling the signalling between end points back-to-back.

A B2BUA maintains the complete state for the calls it handles. Each side of a B2BUA operates as a standard SIP network element as specified in RFC 3261.

A B2BUA breaks the end-to-end nature of SIP.

**Functions of B2BUA**

A B2BUA provides the following functions:

- Call management *billing, automaticcalldisconnection, calltransfer, etc.*
- Network interworking *perhasswithprotocoladaptation*
- Hiding of network internals *privateaddresses, networktopology, etc.*

Often, B2BUAs are also implemented in media gateways to bridge the media streams for full control over the session.

**Example of B2BUA**

Many private branch exchange **PBX** enterprise telephone systems incorporate B2BUA logic.

Some firewalls have ALG functionality built in, which allows a firewall to permit SIP and media traffic while still maintaining a high level of security.

Another common type of B2BUA is known as a Session Border Controller **SBC**.