Quake III Arena Broadband Adapter FAQ

by JHurtado   Updated to v2.0 on Aug 20, 2001

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                    Quake 3 Arena
                    The Dreamcast Broadband Adapter FAQ
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RECENT UPDATE REPORT
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2.0    Section 4.0 - Specific and Solutions has been updated thanks to David J.
       Antoine's contribution.  I also updated Section 2.0 (CAQ) with updated
       answers.

1.0      First draft of the Dreamcast Broadband Adapter FAQ for Quake 3 Arena.


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1.0 INTRODUCTION
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Welcome to the FAQ for using the Sega Dreamcast Broadband Adapter (BBA) with
Quake 3 Arena (Q3A).  Its purpose is to provide you with information on how to
properly connect your BBA to whatever high-speed internet service whether it is
DSL, Cable, or 10/100Base-T Ethernet.


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2.0 COMMONLY ASKED QUESTIONS ABOUT THE BBA
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i) What is the Broadband Adapter (BBA)?
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It is a device that the Sega Dreamcast uses to connect to high-speed internet connections such as DSL, Cable, and 10/100Base-T Ethernet.

ii) What does the BBA do?

It allows a much faster connection to the internet that the Dreamcast's built-in 56K modem. There is much less latency (lag) because the BBA can transmit and receive information at a higher rate than modems.

iii) How much faster is the BBA than the Dreamcast modem?

It depends, but it's at least almost twice as fast than an excellent modem connection. For example, a very good modem ping connection to play Q3A through SegaNet is 140ms[milliseconds]. Ping measures how long a transmitted signal is sent back to its source. In this case, it takes 140ms for information to be transmitted from the Dreamcast to a server, and then back to the Dreamcast. With the BBA, that ping connection is dramatically reduced, reaching speeds as low as 32ms.

iv) How do I install the BBA?

You must remove the Dreamcast's modem before you can connect the BBA. Making sure that the Dreamcast (DC) is unplugged and that no game in inside, hold the DC upside-down, place one thumb on the modem latch and the other thumb where the FCC label is. While pressing on the latch, you use both thumbs to move the modem away from the Dreamcast. The instructions included with the BBA provide a diagram on how to remove the modem. Once the modem is removed, you can easily install the BBA into the DC.

v) Can I use my dial-up service with my BBA?

No. The BBA is designed to only work with high-speed connections such as DSL, Cable, or 10/100Base-T Ethernet. If you want to use the BBA and have a dial-up connection, you must switch to one of the aforementioned high-speed connection services.

vi) Just what is 10/100Base-T Ethernet?

It is a high-speed connection to the internet. Think of it as plugging straight into the internet without dialing in. 10/100Base-T means that information is sent at either 10mbps or 100mbps (millions bits per second), depending on what the provider has set up.

vii) How much do those high-speed connections cost?

It varies, but expect to pay around 50 dollars a month for DSL or Cable. (If you have an better estimate for the cost, please e-mail them). Some college campuses provide 10/100Base-T Ethernet connections in their dormitories, and those are usually free (since their cost is included in the tuition).

viii) Which is better: DSL, cable, or Ethernet?

College ethernet since it's free. :) If you don't have access to ethernet, DSL is your better choice. Cable modems offer a fast service, but it's access speed will decrease as more people in your area sign up since you will all be sharing the same connection. DSL, on the other hand, will not be affected by the number of people accessing it. The major problem with DSL and Cable, besides their steep price, is that they are not available in most areas.

ix) How do I get DSL/Cable?

Look around. I can't honestly recommend any companies because I have never
used those services (Email suggestions!). Search engines and your local phone
company are good places to start.

x) Hey, I can't find the BBA in stores. Where can I find it?

Sega at one point sold the BBA exclusively through their website, Sega.com, but
now it no longer sells it. Considering that Sega has stopped Dreamcast production
and not too many people have access to broadband connection, Sega decided that it
was not financially feasible to make many BBAs. Your unfortunate best bet is to
look through auction sites like Ebay (ebay.com) or several online stores that may
have them in stock (like the very undependable buyrite.net; buy at your own
risk).

xi) How much does the BBA cost?

It was $60 when it was first released. However, because there were limited
quantities made and it is no longer in production, expect to pay at least $80.

xii) Can I use the Dreamcast browser (latest version 2.7) with my BBA?

No. The browser is not compatible with the BBA because it asks for dial-up
information, which the BBA cannot give. You cannot surf the web with
your Dreamcast if you have a BBA installed.

xiii) When will a BBA-compatible browser be released?

Sega has announced that it will not produce a BBA-compatible browser for the
Dreamcast.

xiv) How do I connect my BBA to a high-speed connection?

You'll need an ethernet cable to connect your BBA to your high-speed service.
They'll either be provided by your DSL/Cable provider or you'll need to buy one
separately. You can find them at any computer store. Your provider will tell
you what cable you need in case you have to buy one. However, if they don't
specify which cable to get, the instruction manual recommends a category 5 UTP
(Unshielded Twisted Pair) or STP (Shielded Twisted Pair), 2-pair (4 wire)
cable. I assume that if the cable has a RJ-45 connection, it should work with
your BBA.

xv) Huh?

Go to the computer store and ask a store attendant that you need an
ethernet cable. Write the information that your provider has given you about
the cable or the information from question xiv and show it to the attendant.

xvi) Can I use my phone cable to connect the BBA to an ethernet connection jack
or a regular phone jack?

NO! Not only will that not work, but you could damage your BBA and your DC.

xvii) How about if I connect an ethernet cable to my Dreamcast modem?

NO! You will not get a faster service and you could damage your BBA and your
DC.

xviii) Help! I got my BBA and I can't get it to work! What's wrong?

Ah, a very troubling question indeed! Look in the following sections of this
FAQ for more info.

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3.0) Q3A INTERNET GAME CONNECTION, BROADBAND STYLE
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It's not very hard to connect. After your BBA is connected to your ethernet
connection via an ethernet cable, you're pretty much set to play broadband
style. However, you will need to find out what type of connection your network
uses (you can do so by contacting your provider). The connection will either
be DHCP, PPPOE, or Static IP (these are explained in more detail below). If
you select Internet Game at Main Quake 3 Arena screen, you'll no longer see the
dial-up information screen. Instead, you'll see a LAN account screen asking
for:

a) Your Username
b) Your Password
c) Your IP Address
d) Subnet Mask
e) Gateway
f) Primary DNS Server
g) Secondary DNS Server

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CONNECTION VIA DHCP
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DHCP is used for services that dynamically allocate IP addresses. If you know
that your network has this (or your provider told you), then connection should
be really easy for you.

By default, the username and password fields are blank and the other values are
"0.0.0.0" (no quotes!). The BBA will automatically receive all the information
from your high-speed connection, so there is no need to input values. Click on
"next", and after your BBA configures and connects to the server, you should be
in broadband bliss (a list of Quake servers should appear on your screen after
it scans the servers).

Too bad life isn't this easy. There could be a good chance that when you reach
this step, you'll meet with an unsettling message, "No response from master
server". If this is the case, you will have to provide more information on the
LAN Account Screen. Read PPPOE for more info.

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CONNECTION VIA PPPOE
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PPPOE stands for Peer-to-Peer Protocol Over Ethernet. If you know that your
connection uses PPPOE or the instructions from DHCP didn't work, then follow
these instructions.

Make sure IP Address, Subnet Mast, Gateway, Primary DNS, and Secondary DNS are
"0.0.0.0" (no quotes!). Input your username for your ISP in the User Name
field and your password in the Password field. Select "next" and cross your
fingers as it connects and configures with the server.

It should work, right? If you see a list of Quake servers, hooray for you. If
you don't and you still get the dreaded "No response from master server"

message, there's still hope. Read the next section for more details.

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STATIC IP
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You are either here because you know your connection uses Static IP or you've
tried DHCP and/or PPPOE and it didn't work. At this point, you'll need
specific information about your connection so that your BBA can function
properly. There are two ways you can get this information, so read carefully.

PLAN A) If your PC is working with your connection . . .

There is no need to contact your provider if your PC already works fine with
your high speed access. You can easily get the info by following the steps
below. You are looking for the following:

a) Your IP Address
b) Subnet Mask
c) Gateway DNS
d) Primary DNS Server
e) Secondary DNS Server (if necessary)

Windows 95/98/ME users should go to the Start Menu and select Run. Type
"winipcfg" (no quotes!) on the RUN command and select OK. A window will pop up
showing you some of your connection information. Select MORE and all the
information that you need for the connection should be displayed. Very
carefully write the numbers that you need and input them into the LAN Account
Screen. Make sure you select CANCEL to ensure that you didn't make any changes
in the window.

NOTE!!! If you do not have TCP/IP protocol installed in your PC, then this
will not work. Proceed to PLAN B.

Windows 2000 users can get their connection info by going to the Start Menu and
selecting Run. Type "cmd" and then hit OK. A Command Prompt window will
appear. Type "ipconfig/all" (no quotes!) and your connection information
should show up. Carefully write the numbers that you need and input them into
the appropriate fields.

If this doesn't work, proceed to PLAN B.

PLAN B) Contact your DSL/Cable/Ethernet Provider

Get the information straight from the horse's mouth. Calmly call the provider
and ask for the following information about how to connect to their service:

a) Your IP Address
b) Subnet Mask
c) Gateway DNS
d) Primary DNS Server
e) Secondary DNS Server (if necessary)

Write those numbers down carefully. Even one incorrect number will guarantee
that your BBA will not work with your high-speed connection. Input those
numbers onto the LAN Account screen and then connect. How do you know if you
are successful? After the BBA is connected to the server, you'll immediately
see a list of available Q3A servers for you to terrorize. Depending on what
service you use, you may need to input your username and password in addition
to these numbers.

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PLAN C) What if it still doesn't work?

Are you sure that you are using the right ethernet cable?  Are you sure the
cable is properly hooked to both your Dreamcast and the ethernet data jack?
Are you sure your service isn't temporarily down?  Are you sure you wrote down
the right numbers from PC or your provider?  Are you sure you have a BBA hooked
up to your DC?

Sometimes it's the stupid things that prevent you from having fun.  If you
answer "yes" to all these questions, there's not much else I can do.  Your best
bet will be to call both your provider and Sega for assistance.

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4.0 SPECIFIC PROBLEMS AND SOLUTIONS
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This is where I will need your help.  I am not using DSL or Cable for my BBA
connection, so I can't offer any troubleshooting advice aside from what I wrote
in Section 3.0.  However, if you have encountered a specific problem and have
resolved it, then please e-mail it to me.  You will be given full credit and
doing other Quake fraggers a huge service.  If you have specific
problems/solutions for college ethernet, e-mail them to me as well.  I'll
hopefully add a college ethernet troubleshooting guide in my next update.
Email is jonhurtado@juno.com.

The following information was e-mailed to me by David J. Antoine (email address:
smuvmoney@ameritech.net).  He was able to connect his DC BBA through his DSL
service, although it was very difficult to do so.  Everything written by David
is enclosed by a row of equal signs.  If you encounter any problems, please
email David, not me.  If you see any errors in David's section, please notify
David and me.  Take it away, David!

=======================David J. Antoine's Section==========================

Here was my initial DSL setup when I bought the DC BBA:

ISP: Ameritech.net SpeedPath DSL
Modem: Westell Wirespeed DSL Modem
NIC: Kingston TXE110 (I think - I have replaced it - see below)
Connection: PPPoE (Peer to Peer Protocol over Ethernet)
IP Allocation: Single/Dynamic, i.e., 1 IP address
Authentication Software: Enternet 300 (not to be confused with ETHERnet)
PC: Gateway G6-450 (Pentium II 450)
Wiring: CAT-5 Ethernet Cable
Basic Schematic: [Wall Jack] <-> [DSL modem] <-> [PC NIC]

Earlier this year, I had purchased the Dreamcast Broadband Adapter (DC BBA).
At first, I thought I could just plug the BBA into my DSL modem and just go
in and play Q3A - sorry *BUZZ* WRONG ANSWER!  So I called Sega Technical
Support and we tried everything from winipcfg to resetting my DSL modem to
everything in between.  Finally, after Sega could not help me, I decided to
do some research on my own on a site called DSL Reports
(http://www.dslreports.com or DSLR for short).  I realized the reason I
could not connect was because of the connection software my ISP uses,
Enternet 300.  I guess my ISP did this to prevent "unauthorized" use of my
DSL like through my DC.  After further research and understanding, I had
come down to two solutions: 1) purchase a PPPoE-capable router or 2) use
some internet connection sharing software like Microsoft's Internet
Connection Sharing (ICS) for WIN98SE or higher.
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1) Router

This is a hardware device that allows you to share your broadband connection
among several machines (depending on the number of ports on the router).
Using this would bypass the need for authentication software as the router
can be programmed to handle the authentication for you. The router also had
an embedded 4-port switch to allow for multiple devices to be connected
(like the DC BBA).

I decided to try the router since I didn't have Win98SE (only Win98). I
went and bought a Netgear RT314 (researched from DSLR and other sites).
Configuring the router to work was probably the hardest part, but the
directions were pretty clear. Once I got it to work, I no longer had to use
Enternet, which took up a LOT of resources as I had come to find out. The
router made my connection a lot more stable. Now onto the important part -
getting the BBA to work with it. I had bought some extra CAT-5 straight
through cable. I plugged the DC BBA into the 2nd LAN port (PC took up the
1st) and turned on Q3A. I entered the information as per the directions for
the BBA, mostly using "winipcfg" to get the information. After I hit next
to connect, 12 seconds later I was in. Now for the BIG test, can I hold the
connection? After 4-5 hours of straight gaming bliss that night, I'd say
yes. :D The router actually killed two birds with one stone: 1) it made my
connection a lot more stable; and 2) it allowed me to use my DC BBA.

Here are the major advantages to using the router (as opposed to ICS,
detailed below) :

- Elimination of PC authentication software (Enternet) : this frees up PC
resources and makes your connection independent of your PC
- Connection stability: the router seems to hold the connection and
reconnects better than Enternet ever could
- Technical support site: sites like DSLR can give you better support than
your ISP or even the company who built the router
- Connection speed - gateway routers (w/ dedicated switches) tend to be very
fast.

The disadvantages/problems with a router are:

- Configuration, maintenance, and troubleshooting: this may be somewhat
difficult if you are a networking newbie or not a technical person - hence
the repeated plug of DSLR
- Cost: this may be out of some people's ranges ($70-100 + extra CAT-5
wiring) especially if they are unsure of what they are doing
- ISP Technical Support: most ISPs will not help you if something goes wrong
with your router/connection unless you got the router from them

My final configuration looked something like this:

ISP: Ameritech.net SpeedPath DSL
Modem: Westell Wirespeed DSL Modem
NIC: Netgear FA311 (Kingston NIC died)
Connection: PPPoE (Peer to Peer Protocol over Ethernet)
IP Allocation: Single/Dynamic, i.e., 1 IP address (now shared across
Sharing Device: Netgear RT314 Gateway Router
Authentication Software: none (thanks to RT314)
PC: Gateway G6-450 (Pentium II 450)
Wiring: CAT-5 Ethernet Cable
Final Schematic: [Wall Jack] <-> [DSL modem] <-> [Router] <-> [PC NIC] & [DC
BBA]

2) Internet Connection Sharing (and other connection sharing programs)

Even though I didn't use this solution, I did want to speak on it in case
anyone felt like going this route. Most of this information is taken in
some way, shape, or form from DSLR (yes again!).

Internet Connection Sharing (ICS) is a program bundled with Win98SE or
higher that allows you to share a broadband connection with another device
or set of devices if you have a hub. This requires Win98SE or higher, a 2nd
NIC, and a CAT-5 crossover Ethernet cable. If you don't have Win98SE, you
can search the web for free shareware that does this - however, the 2nd NIC
and Cat-5 still hold as far as I know. Once you set up ICS and get the PC
connection working, then you should connect the DC to the 2nd NIC via
crossover cable and attempt to connect the DC.

Here are your advantages when compared to a router:

- Cost: significantly cheaper (NIC $20-30, CAT-5 $5-10)
- Ease of use: From what I have heard, ICS is pretty easy to install; also,
you don't have to mess with your already existing PC connection that much as
compared to a router
- Technical support site - see plug of DSLR

Your disadvantages would be:

- Scalability: what happens when GameCube, Xbox, and PS2 go broadband? Or
you wish to connect another PC? At that point, you're forced to buy a hub.
ICS only daisy chains one device without a hub from what I recall.
- ISP Technical Support - see point with router.
- Speed: ICS tends to be slower than a dedicated switch or router IIRC.

If you have any questions, email me @ smuvmoney@ameritech.net and I will do
what I can to help. This section is the result of lots of research on sites
like DSL Reports (http://www.dslreports.com). I seriously suggest you visit
them as well for any networking-related questions you might have.

====================End of David J. Antoine's Section========================

There you have it. Again, if you have any problems connecting via David's
method, email him (smuvmoney@ameritech.net), not me.

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5.0 CONCLUSION
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Thank you for reading the FAQ. Email your questions, suggestions, corrections,
and whatever else you feel is necessary for this FAQ. I'll give you full
credit if the information you provide is specific enough.

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6.0 SPECIAL THANKS
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BIG THANKS goes to David J. Antoine (smuvmoney@ameritech.net) with his massive
contribution to Section 4.0

hal9000@sega.net - Quake 3 Arena (DC)'s Server Administrator for helping me
connect to my college ethernet

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Jeff, Akshay, and Ryan - for also helping me connect to my college ethernet

Sega - for Quake 3 Arena, the Broadband Adapter, and the instructions I used as
reference for my FAQ
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