

Synthesys.Net Bandwidth Requirements

This document is designed as a guide to the typical network usage of Synthesys.Net, if there are specific concerns regarding Bandwidth usage please refer these to your Noetica Contact.

Assumptions and calculations.

Note that programmers usually talk about bytes, whereas network providers measure pipe speeds in bits, of which there are usually eight in a byte, but sometimes pipes have overhead on each byte which makes this closer to a factor of ten rather than eight.

Summary information

- a. Each page (download) is about 2Kbytes
- b. Each user will submit or cause a postback every ten seconds.

Which means each user requires 0.2KBytes/s download. Upload is a little lighter (about half this). Recommended pipe size is double this, then rounded to a power of two (not always necessary). No other traffic uses the line.

Recommendations

Number of Users Saturated Bandwidth Recommended Pipe Kbytes/second Recommended Pipe Kbits/second

Number of Users	Saturated Bandwidth	Recommended Pipe Kbytes/second	Recommended Pipe Kbits/second
1	0.2	0.4	64
10	2	4	64
20	4	8	64
50	10	32	256
100	20	64	512
200	40	128	1024
300	60	128	1024
500	100	256	2048

These represent a generous allowance of bandwidth to attempt to give the best possible performance.

The following factors should be taken into account :

- a. More complex scripts might increase the bandwidth requirement, less complex scripts could reduce it.
- b. 10s is probably the fastest an agent might interact with the system, for example following a pure data entry script rather than a sales script which would involve more talk time.
- c. These figures assume all agents are always busy. Idle agents use no bandwidth.
- d. It is possible to use server side compression to approximately double the capacity of the line. See Microsoft Knowledge Base article 322603 for how to do this.
- e. Calculations are based on http traffic, we haven't verified the expected increase of traffic caused by using https.