

1. HOW DOES PANDA CLOUD OFFICE PROTECTION COMMUNICATE OVER THE INTERNET?

The following table shows a summary of how endpoints protected with Panda Cloud Office Protection access the Internet for tasks that require communication over the Internet.

Endpoint status	Communication with the server	Signature file updates	Product installation and upgrades	Access to Collective Intelligence (CI)
Connected to the Internet	From the endpoint or another endpoint configured for such purpose	<p>It shares signature files downloaded by other networked endpoints thanks to PCOP's P2P technologies.</p> <p>It only downloads signature files provided no other endpoint has done it previously.</p> <p>It is possible to specify an endpoint to download signature files from the server. This endpoint will also act as a signature repository, so that signature files will not be downloaded again when requested by another computer.</p>	<p>It shares upgrade packages downloaded by other networked endpoints thanks to PCOP's P2P technologies.</p> <p>It only downloads upgrade packages provided no other endpoint has done it previously.</p> <p>It is possible to specify an endpoint to download upgrade packages from the server.</p>	Connections to Collective intelligence are established from each endpoint*.
Not connected to the Internet (but at least one networked endpoint has an Internet connection)	From the endpoint with the Internet connection or the endpoint configured to channel all communications with the server.	Updates take place from the endpoint with the Internet connection, or the endpoint configured to channel all communications with the server.	Upgrades take place from the endpoint with the Internet connection, or the endpoint configured to channel all communications with the server.	It is not possible to access Collective Intelligence from endpoints without an Internet connection*

*If endpoints access the Internet using a corporate proxy server, Panda Cloud Office Protection will use it as well. The proxy server to use can be configured in the Panda Cloud Office Protection settings.

2. BANDWIDTH USAGE SUMMARY TABLE

The following table shows a summary of the bandwidth used by Panda Cloud Office Protection for each type of communication.

Communication	Approximate bandwidth usage
Product installation	7.96 MB: Installer and communications agent 45.8* MB: Endpoint protection package
Communication with the server	60 KB every 12 hours (10KB in messages sent every 15 minutes to check for configuration changes and 50 KB in status, settings and reports messages)
Signature file updates**	12.5 MB the first time only, after installing the protection 200-300 KB every 24 hours for signature file patches.
Product upgrades**	7.96 MB: Communications agent 45.8* MB: Endpoint protection package A product upgrade takes place every 6 months approximately.
Queries to Collective Intelligence	Real-time, on-access protection 500 KB: Bandwidth used on the first day, when the cache is empty. 35-100 KB: Bandwidth used after the first day, once the information is cached. Full scan of the computer 200-500 KB: First full scan of the computer. 50-200 KB: Subsequent full scans of the computer.

* 46.2 MB for 64 bits installer.

** Signature file and product updates are downloaded by a single endpoint on the network, and shared by the other networked endpoints thanks to Panda Cloud Office Protection's P2P technologies.

The signature file patches will be different depending on how outdated the signature files are. For example, if an endpoint has a two-day old signature file and another one has a one-day old signature file, the patches to download will be different.

If you select a computer to act as a proxy/repository server, all communications except queries to Collective Intelligence will take place through that computer. Additionally, signature files will be stored in the computer selected as the repository (it will not be necessary to download them again if requested by another computer on the network).

3. ESTIMATING BANDWIDTH USAGE

Suppose you have a local network consisting of **N interconnected** computers, and you install Panda Cloud Office Protection on them.

The bandwidth usage will be approximately as follows:

Communication type	Internet access (bandwidth used)	Local network (bandwidth used)
Product installation (1 time only)	7.96 MB for the communications agent & the installer * N computers + 45.8* MB for the endpoint protection package	+ 45.8* MB for the endpoint protection package * N computers
Communication with the server	60 KB every 12 hours * N computers	
Signature file updates	12.5 MB the first time only, after installing the protection 200-300 KB every 24 hours (signature file patches).	12.5 MB the first time only, after installing the protection * N computers 200-300 KB every 24 hours (signature file patches) * N computers .
Product upgrades (approx. every 6 months)	7.96 MB for the communications agent & the installer + 45.8* MB for the endpoint protection package	7.96 MB for the communications agent & the installer * N computers + 45.8* MB for the endpoint protection package * N computers
Queries to Collective Intelligence	500 KB the first time * N computers + 35-100 KB every day * N computers	

* 46.2 MB for 64 bits installer.

4. URLs

For more information about the URLs necessary for Panda Cloud Office Protection to update, connect to the cloud platform and provide the maximum protection by leveraging Collective Intelligence, read the following article published in Panda corporate website: [Which URLs are necessary for Panda Cloud Office Protection to work correctly?](#)

(Link to the article <http://www.pandasecurity.com/enterprise/support/card?id=50022>)