This document describes how to use the Zerto WAN Sizing Estimator. For additional information about WAN sizing, refer to http://s3.amazonaws.com/zertodownload_docs/Latest/Zerto%20Virtual%20Replication%20Sizing.pdf.

Note: The Zerto WAN Sizing Estimator is included in the download with this document.

Calculating the Estimated Bandwidth Requirement

Use the average write rate for the virtual machines in a VPG in the Zerto WAN Sizing Estimator to estimate the minimum bandwidth required.

For each VM you also must decide whether compression will be enabled for the VM, based on the data characteristics.

Use one of the following procedures:

- Estimating sizing using the Zerto WAN Sizing Estimator
- Estimating sizing without using the Zerto WAN Sizing Estimator

Estimating sizing using the Zerto WAN Sizing Estimator

1. Open the Zerto WAN Sizing Estimator.
2. Enter the following information in the VM data sheet:
   - The VM name.
   - The Write KB/s data, based on the statistics gathered in the previous task. Use a period for the decimal mark.
   - Define whether compression is enabled for this VM: Select Yes or No.
   - The application data characteristics: Select Compressed or Compressible.
   The Zerto WAN Sizing Estimator colors the cell red if you decide to employ compression on compressible data and orange if you decide to avoid compression for compressible data.
3. The Zerto WAN Sizing Estimator estimates the total bandwidth needed for your deployment, using a minimum value of 5 M b / s e c.
   The estimation is displayed on the top of each page of the Zerto WAN Sizing Estimator.
   TIP:
   - The Zerto WAN Sizing Estimator also includes an Initial Sync Calculator sheet which you can use to estimate the initial synchronization time given the disk sizes or the virtual machines in a VPG, the available bandwidth and whether or not preseeding is used.
   - The result is an estimate and could be increased by extensive write I/O activity and/or storage latency.
   - The Initial Sync Calculator takes into account the actual ongoing change rate data from the VM data sheet as well as automatically using the compression parameter from the VM data sheet.

To estimate the WAN sizing required without using the Zerto WAN Sizing Estimator, using the following procedure.

Estimating sizing without using the Zerto WAN Sizing Estimator

1. For each virtual machine in the VPG multiply the KB/sec (which is based on the statistics gathered) by 8, and divide the result by 1024 to provide an answer in Mb/sec.
   - If compression is enabled for the VM and the data is compressible, divide this result by 2.
2. Sum the results of 1.

\[
\text{WAN Mb/sec} = \sum(\text{KB/sec} \times (8/1024/(1 \text{ or 2 if compressible data that will be compressed})))
\]

The result is an estimate of the required Mb/sec for the WAN.
Note: If the result is less than 5 Mb/sec, you must use a minimum dedicated bandwidth of at least 5 Mb/sec.