HowTo - Configure the number of concurrent client updates from the MiCC server

INFORMATION
In MiCC Version 8.0 we introduced a new client installation and update system. One of the added features is the ability to limit concurrent client software updates. In environments with limited network bandwidth or large numbers of client computers this can be used to ensure that client updates do not saturate the network. Our default setting is 50 concurrent downloads.

CONFIGURATION
You can set the maximum number of concurrent downloads on the Server page in YourSite Explorer.

Quick explanation of calculations

To determine the ideal number of concurrent downloads you will need to calculate the following:

1. Client size in bits / average desired download time in seconds = *bps per user*
2. % of total network bandwidth used for updating in bps / *bps per user* = **# of concurrent connections**

Detailed explanation of calculations with example
NOTE: Below we have included the detailed steps to calculate the number of concurrent connections for your site. Examples (in bold) have been provided to show the math. For the examples below we will be working with the following assumptions:
- The update size is 371.58 MB
- Desired average download time is 10 minutes
- We want to use up to 80% of a 1Gbps network for updating

1. Determine the size of the client update in bits by going to
[InstallDir]\Websites\CcmWeb\Downloads\Applications and adding the following folders together for a total value in MB (*8.0.0.0 is estimated to be 371.58 MB*):
- AppStart
- CcsClient
- ContactCenterClient
- FlexibleReporting
- Ignite
- MbgConnector
- MiAudioEmulationServer
- MiCCSetup
- SalesForce
- UpdaterService
- YSE

2. Convert this total from MB into bits.

    Example: Using the estimated 371.28 MB for Version 8.0.0.0: *371.58 * 1024 * 1024 * 8 =* ***3117038961 bits***

3. Estimate the desired average download time for a client update in seconds.

4. Divide the number of bits for the total download by the number of seconds for an average update determined in step 3 to calculate the **bits per second per user** value.

    Example: With an average download time of 10 minutes (600 seconds) and the above default size: *3117038961 / 600 =* ***5195065 bits per second*** (approximately 4.95Mbps)

5. Determine the total amount of bandwidth available on the network in bits per second.

    Example: In a 1 Gigabit network: *1*1024*1024*1024 =* ***1073741824 bits per second****.*

6. Determine the amount of network bandwidth to be used for the update. To avoid saturating your network we recommend keeping a percentage for other traffic.

    Example: 80% of a 1Gbps connection would be: *1073741824 * 0.8* ***= 858993459 bits per second****.*

7. Calculate the number of concurrent connections by dividing the *percentage of bandwidth* by the *bits per second per user.*

    Example: *858993459 / 5195065 =* ***165 concurrent connections****.*

APPLIES TO
MiCC Version 8.0.0.0 and newer
Keywords: calculate concurrent update updates client clients