



IP Video – The Basics

Calculating IP video storage and bandwidth consumption are two key factors in determining if this is a workable solution for your company. While plenty of on-line calculators are available, the numbers they generate are only a variable estimate. There are other considerable factors that will ultimately impact the true calculation. However, these calculators are a good starting point but consider the follow additional options.

In-House System Test

Start with a small scale test site. This would allow you to experience a real system scenario in your environment. The ability to adjust frame rate, band width throttle and resolution will be very beneficial in separating fact from fiction. After a suitable period of time and finding the perfect blend of system settings, you can do the math by using the numbers the test provided and multiplying them by the desired number of cameras.

Network Baseline Simulation

This test will work in tandem with your information technology team to insure that your network is ready and able to handle the added traffic that an IP based system will require. This test can help reduce cost overruns, improve installation success and reduce post installation troubleshooting issues. All incidents of data delay, jitter and packet loss can be determined during this simulation process.

Other Contributing Factors

Some other factors such as the frame rate, resolution and the compression used are key factors included in storage and bandwidth calculators. While they do impact consumption, this is only part of the equation. Other factors include lighting conditions, motion detection, quality settings and the overall complexity of the image scene.

Compression Options

Choosing the right compression is a huge factor in overall system performance. While MJPEG delivers beautiful video with minimal latency, the file sizes are up to 80% larger than systems using H.264 compression. Fluid high quality video is an important component in recorded video, but the ability to transmit that video for remote viewing can be an issue. Web based browsers tend to offer more fluid transmission with very high quality video. These browsers do not offer all the functionality of the client based software that tend to be more bandwidth consumptive.

IP video systems require an experienced systems integrator and an end-user that realizes there will be various stages of trial and error methodology to find the ideal settings in video quality, storage requirements and bandwidth utilization.