

# bandwidthMAX Solution 2.0

Designed For Full Utilization of Bandwidth Efficiency

**TeleEye**



## Cost Effective Solution for Different Bandwidths

For security reasons, surveillance cameras with higher resolution have become the trend in the market. Cameras with better images usually require a higher bandwidth to maintain a stable and smooth video stream, however, it is a common phenomenon that users tend to mismatch their products with an unsuitable bandwidth due to money concern, misunderstanding about networks and the limitations in remote areas. In consequence, the large streaming volume in the videos may be unable to fit into the confined bandwidth.

TeleEye bandwidthMAX Solution 2.0 is especially designed for the above situations! With the combination of TeleEye GN8 Series DVRs and MP4/ MP8 Series IP Cameras, videos will be automatically adjusted to seamlessly fit into any bandwidth size under our newly-developed technology. By means of our intelligent solution, not only can the fluency of the video stream be guaranteed regardless of your bandwidth size, but also substantial savings can be realized as you do not need to go after a better but more costly bandwidth endlessly.

### Benefits

#### Cost-saving

- ▶ Cater for different networks

#### Support 3G/ 4G LTE

- ▶ Suitable for 3G/ 4G mobile network

#### Smoother Video Stream

- ▶ Seamlessly fit into any bandwidth size

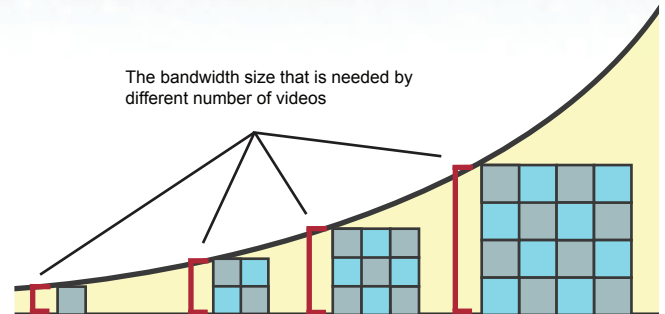
#### Hacker Resistant

- ▶ Secure data transmission

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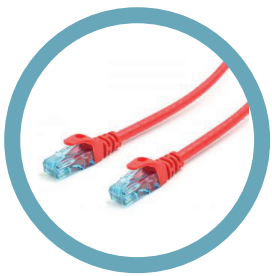
## Situation:

The images of better resolution will increase the streaming volume in the video, in which, a higher bandwidth is needed to be passed through by such volume in order to have a smoother video stream.



## Why use TeleEye bandwidthMAX Solution 2.0?

### 1 Compatible with Different Networks



Having a high broadband rate is not necessarily equal to a total “FAST”. In fact, the broadband rate is divided into “downstream rate” and “upstream rate”. High broadband rate enables you a high downstream rate. However, the speed of the upstream rate is usually 5 to 10 times slower than the downstream rate. Yet, the fluency of the video within the video surveillance platform normally depends on the upstream rate. That is to say, even if you acquire a high broadband rate, a smooth video stream still may not be guaranteed.

With TeleEye bandwidthMAX Solution 2.0, no matter how fast or how slow your network is, this solution provides the best-suited integration for your networks and thereby keeping the fluency of the video stream in a steady and satisfying state.

### 2 Cost Effective

You may purchase an extra-high broadband for a higher upstream rate. However, it costs a lot. Leased line is another kind of network, yet, it is designed for those who place high concern in security, such as the government and banks. As it is a private circuit, it is very expensive. Due to the money concern, a limited leased line rate is usually adopted by the users, resulting in the limited frame rate in the video stream.

With TeleEye bandwidthMAX Solution 2.0, you can choose a network that is within your budget as our solution will intelligently integrate with your network. Thus, you don't need to seek a faster but more expensive network without end.



### 3 Support 3G/ 4G Network

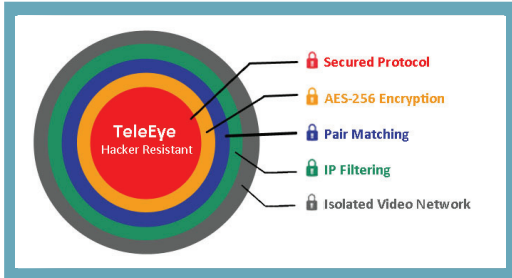


It is very difficult and costly to set up a network in the remote areas. Considering this situation, TeleEye integrates the bandwidthMAX Solution 2.0 with an operation on a 3G/ 4G mobile network. As such, a seamless integration of mobile communications and surveillance can still be executed under adverse environment.

However, 3G/ 4G network still has a similar problem like what the broadband faced --- the slow upstream rate. In a 3G/ 4G network, the speed of the upstream rate can even be 20 times slower than the downstream rate, which greatly affects the fluency of the video stream.

Thanks to TeleEye bandwidthMAX Solution 2.0, more convenient operation and seamless integration can be executed even in a condition of remote areas or limited network rate.

## 4 Hacker Resistant Technology

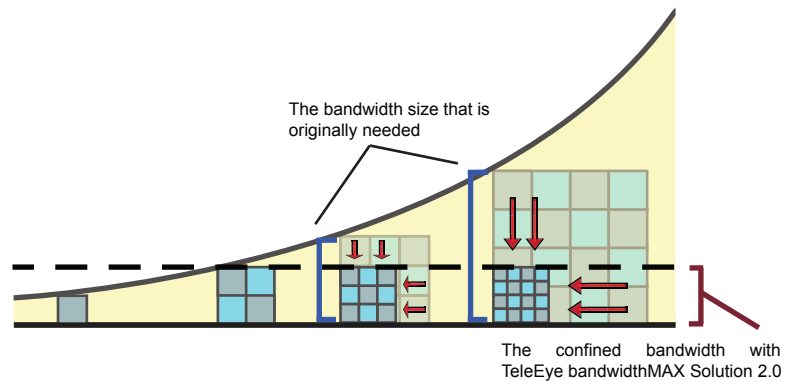


Many ordinary H.264 IP cameras are proven to be insecure, where hackers are able to bypass the security and access the live video footages remotely. Data security is always an important factor in the TeleEye product design.

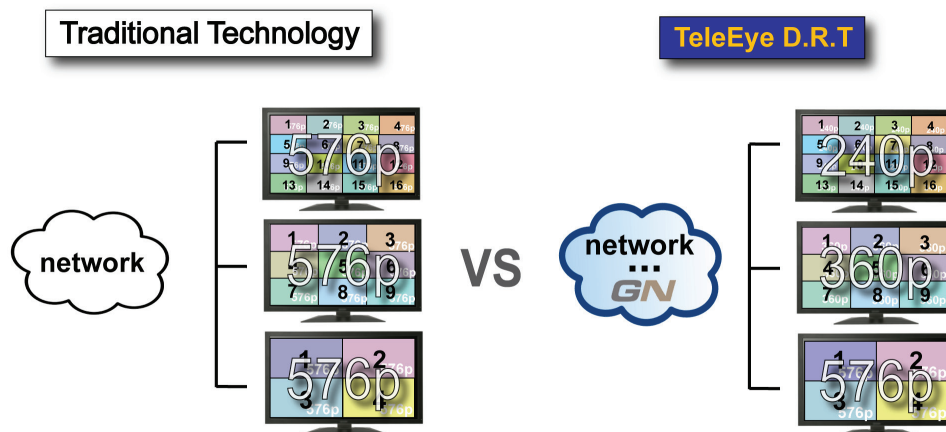
The TeleEye Hacker Resistant technology is incorporated in the TeleEye video surveillance solution, shielding off hackers' attacks via the Internet through 5 Layers of Protection: AES 256-bit encryption, specific IP access, secure protocol and isolated video network.

## TeleEye Dynamic Resolution Technology (D.R.T)

With TeleEye bandwidthMAX Solution 2.0, the frame rate, bit rate and the resolution of the images regardless of any size will be automatically adjusted by our dedicated D.R.T so that they can be perfectly fitted into the confined bandwidth.



### How does TeleEye D.R.T work?



In traditional technology, the resolution of the videos is fixed regardless of the number of screens chosen. That is to say, if a total number of 16 cameras with high resolution images are viewed at the same time in the video management platform, the bandwidth may not be high enough to carry such large volume of videos, resulting in high latency in the video stream.

With TeleEye Dynamic Resolution Technology (D.R.T), the resolution of the videos will be automatically adjusted according to the chosen number of screens. In which, the resolution of the videos will be decreased with the increasing number of screens chosen, vice versa. As such, the volume of the videos can be minimized to increase bandwidth efficiency so as to allow a smoother video stream with a confined bandwidth.

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## The compatibility of different networks between TeleEye bandwidthMAX Solution 2.0 and other commonly-found products

Different Network	Price	Commonly-found products in the market	TeleEye bandwidthMAX Solution 2.0
Broadband – 100 Mbps	💰💰	✓	✓
Broadband – 10 Mbps	💰	Poor	✓
4G Network	💰💰💰💰💰	Poor	✓
3G Network	💰💰💰	✗	✓
Leased Line – T1 (1.544 Mbit/s)	💰💰💰💰💰	Poor	✓
Leased Line – 512 Kbps	💰💰💰	✗	✓

Among three kinds of networks, broadband is the most economical. A higher speed of 100 Mbps allows a stable video stream for most of the products with normal-sized images. However, when it comes to a slow speed of 10 Mbps, since the network is not sufficient for the streaming volume, the other brands usually obtain a poor state in the fluency of video stream. Meanwhile, TeleEye bandwidthMAX Solution 2.0 can still provide an outstanding performance.

3G/ 4G network and the leased line are very expensive compared to the broadband. As their prices go up dramatically with the increased network speed, lower or fairer speed are usually adopted for economic reasons. The limited speed will eventually affect the smoothness of the video stream. With a low-speed network, some videos may not even be viewable.

With TeleEye bandwidthMAX Solution 2.0, it can guarantee a satisfying performance of the video fluency regardless of your network rate under our dedicated technology. Both of your bandwidth and money can be greatly saved and it is definitely the best solution for you!



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