

# Video Surveillance Made Easy with Extreme Networks

Eliminate Complexity with Extreme Fabric Connect.

## Video Surveillance on the Fast Track

Expected to grow at a compound growth rate of 15.4% through 2022 according to Research and Markets, video surveillance solutions are transitioning to high-definition IP-based solutions that support advanced analytic tools and reside on integrated (versus dedicated) networks. In the face of this change, many businesses are struggling to realize the full potential of modern video surveillance technology due to limitations of the underlying network. They are often faced with long camera re-convergence times, scalability restrictions, security concerns and the painstaking, labor-intensive process of provisioning IP services.

Shortcomings like these can result in video streaming delays from remote monitoring stations, lapses in video as a result of long network reconvergence times and a lack of efficiency due to the complexity in designing, managing and troubleshooting the IP network.

## Complexity is the Challenge

The transition to IP creates opportunities and challenges. On the one hand IP offers greater flexibility — cameras offer enhanced resolution and can be connected to the network with more ease and simplicity than traditional analog models.

On the other hand, IP networking is daunting even for IP experts. The design, deployment and troubleshooting of an IP network can require numerous protocols which must be managed and configured individually. Particularly onerous, IP multicast routing (often preferred to unicast routing due to bandwidth efficiencies) relies on PIM being enabled on all devices such as cameras, video management systems and, of course, switches and routers throughout the entire network. New deployments can take weeks to implement due to the complexity.

Figure 1 shows a typical Video Surveillance Network. It includes cameras (analog, IP or hybrid), video encoders (to convert analog to IP), video recorders, monitoring stations, analytic tools and edge and core IP/Ethernet network switches. The multifaceted key to success, making all of these components work together, is complicated to say the least. The answer lies in the Network.

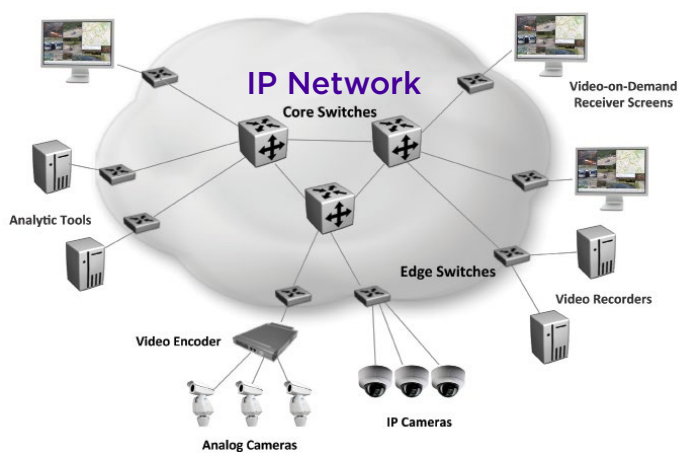


Figure 1

## Simplicity is the Answer

Extreme Fabric Connect represents a new way to design, manage and troubleshoot networks. Fundamentally different from today's complex and static IP networks, Extreme Fabric Connect enables a dynamic, agile and resilient network where services can be deployed at the edge only.

Based on an enhanced version of the IEEE/IETF standard Shortest Path Bridging, Extreme Fabric Connect offers a single, next generation technology that supports today's breadth of network services, L2, L3, routing and multicast. Instead of multiple complex protocol overlays, there is one next-generation protocol that supports all services. It allows customers to streamline their networks and eliminate legacy protocols (Spanning Tree and any PIM-based protocols) and enable IP unicast and multicast routing with greater ease, scale and resiliency than what has been possible in the past.

Designed to simplify any video surveillance solution (analog, IP, hybrid, unicast or multicast), Extreme Fabric Connect eliminates network-wide provisioning practices and substitutes them with very simple end point provisioning with only one or two lines of command. Provisioning is required on only the ports attached to cameras and monitoring stations/receivers – with no need to provision any core switches in between. This not only reduces the

risk of an outage due to human error during change but also allows your video surveillance network to be deployed faster and easier than ever before – with the ability to add, move and change cameras on the fly. In addition, once the end points are provisioned, the network will determine the shortest path from source to destination – ensuring your streaming video comes in real-time rather than delayed by a few seconds.

Extreme Fabric Connect eliminates gaps in video streams by delivering lightning fast recoveries from outages. While traditional IP network reconvergence takes anywhere from a couple of seconds to minutes, Extreme Fabric Connect offers sub second recoveries for both unicast and multicast routing because link and nodal failures are transparent to the video surveillance application.

In the past you may have been limited by the number of cameras and receivers you could support on your IP network – especially in a multicast deployment. With the ability to easily handle tens of thousands of unicast/multicast streams, Extreme Fabric Connect ensures that the network is ready to handle your current and future surveillance needs.

Finally, for customers implementing video surveillance over a converged backbone, Extreme Fabric Connect provides integrated Virtual Router and Forwarding instances – enabling the creation of an isolated IP network over the same physical infrastructure. This IP network can be created without adding any complex protocols (mBGP, MPLS, etc.). Now you can keep your video surveillance traffic completely isolated from other corporate IT traffic by keeping it in its own secure zone.

## New Way of Networking

The old way of networking, fraught with complexity, is out. The new way of networking, making your life easier, is in. Extreme Fabric Connect simplifies IP video surveillance deployments from small to large. In these transitional times for video surveillance technology, it's time for you to choose the networking solution that you don't have to think about – because it just works – Extreme Fabric Connect.



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