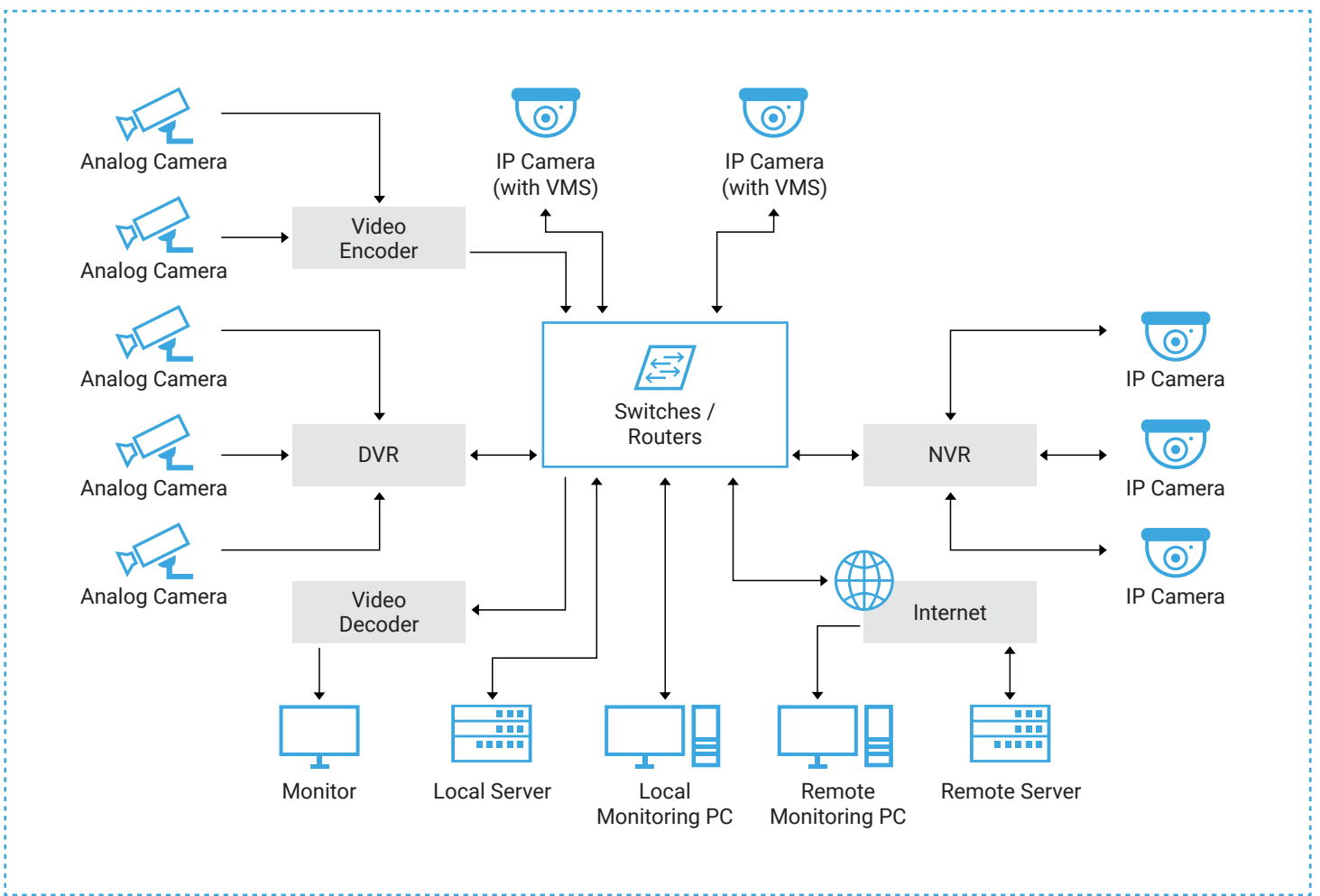


# Video Surveillance System (VSS) Architecture in a Smart Building

Today, many buildings have a hybrid VSS architecture that is quite complex, containing a variety of legacy and new systems, including both analog and IP cameras.

The figure below illustrates the architecture of such a system, where the direction of the arrows indicates the direction of communication.



## SOME OF THE VULNERABILITIES FOUND IN MANY VSS COMMONLY USED IN LARGE ORGANIZATIONS WERE:

- Use of unencrypted video streams via RTP/RTSP
- Unwanted communication links between the IT network and the VSS caused by firewall misconfiguration
- Unwanted services and insecure protocols enabled, including FTP and UPnP
- Weak passwords to access IP cameras
- Vulnerable cameras

To learn more about how our research team successfully exploited unencrypted VSS protocols and replaced a camera's real-time footage with pre-recorded content, download the complete research paper.

**DOWNLOAD**

\*All data from Rise of the Machines: Transforming Cybersecurity Strategy for the Age of IoT: <https://www.forescout.com/places-in-network/building-automation-system-bas/transforming-cybersecurity-strategy-for-the-iot>