ONVIF® | Standardizing IP Connectivity for Physical Security
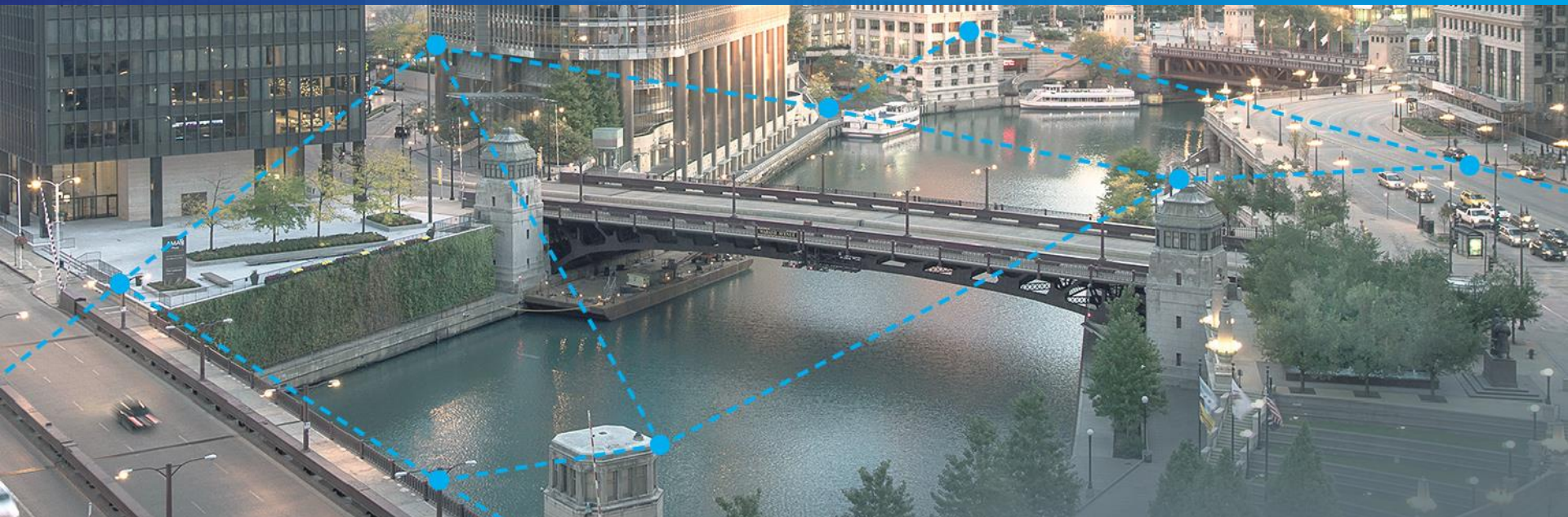
Understand ONVIF in 10 Minutes

ONVIF in a Nutshell

- What is ONVIF?

- Why use ONVIF?

- ONVIF Structure – Specifications and Profiles

- ONVIF Conformant Products

- Where can I get more information?

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for Physical Security

What is ONVIF?

- ONVIF is an organization, comprised of member companies from within the IP security industry

- The mission of ONVIF is to provide and promote standardized interfaces for effective interoperability of IP-based physical security products

- The three cornerstones of ONVIF are:
  - Standardization of communication between IP-based physical security products
  - Interoperability regardless of brand
  - Openess to all companies and organizations

Why Use ONVIF?

In a multi-vendor environment, ONVIF ensures that products will work seamlessly together.

Chose between more than 14,000 products to match your exact needs and preferences, regardless of vendor.

As an installer, ONVIF saves you installation time, trouble, cost, and future-proofs your installation.

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ONVIF Structure

- ONVIF consists of a wealth of specifications

- These specifications are grouped into Profiles

- A Profile has a fixed set of features

- Profiles makes it easier to identify compatible products
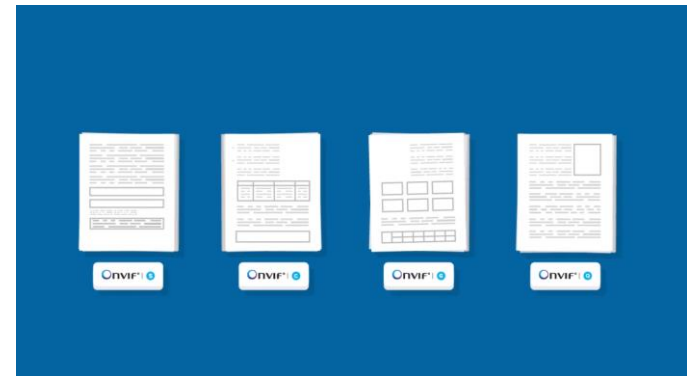
ONVIF Profiles

- The Profile specifies a set of features that must be supported by both client and device

- Conformant products must support at least one Profile...

- ...but can support more than one...
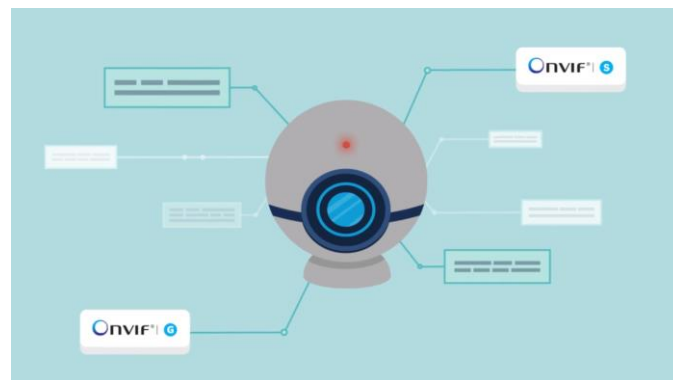
ONVIF Profiles

- Features in Profiles are either Mandatory or Conditional

- Mandatory features must be supported

- Conditional features only supported if relevant

- i.e., PTZ functions can only be supported in PTZ cameras
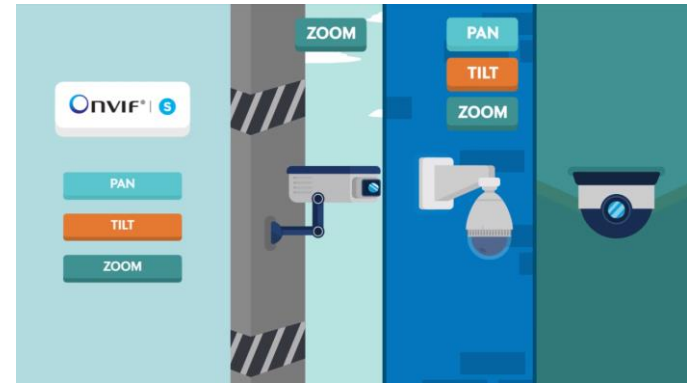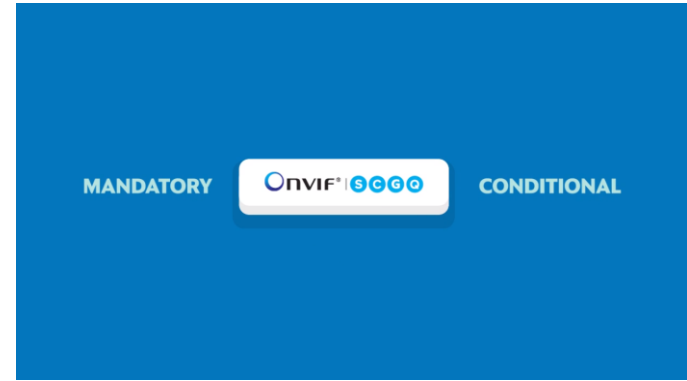
ONVIF Profiles

Profile A for access control configuration

Profile C for door control and event management

Profile G for edge storage and retrieval

Profile Q for quick installation

Profile S for basic video streaming

Profile T for advanced video streaming

ONVIF Profiles

- Online overview of features in each profile

- Check list to see exactly which features a profile covers

- Or check to see in which profile(s) your required feature is included

Features		G		Q		S		T (Release Candidate)		C		A	
		Device	Client	Device	Client	Device	Client	Device	Client	Device	Client	Device	Client
General													
System Settings		M	C	M	C	M	C	M	C	M	C	M	C
User Authentication	WS-Username Token					M	M						
	Digest Authentication	M	M	M	M	O	M	M	M	M	M	M	M
User Handling		M	C	M	M	M	C	M	C	M	C	M	M
Query Services and Capabilities		M	M	M	M	M	M	M	M	M	M	M	M
Device Discovery		M	C	M	M	M	C	M	M	M	C	M	M
Default Access Policy				M									
Network Configuration		M	C	M	C	M	C	M	M	M	M	M	C
Zero configuration				C	C	C	C						
Firmware Upgrade				C	C								
Backup and Restore				C	C								
TLS Configuration				C	C								
IP Address Filtering						C	C					C	C
NTP						C	C	C	C			M	C
Automatic IP Assignment				C	C								
Media Profile Configuration						M	C	M	C				
Media Transport	RTP/UDP					M	M[‡]	M	M[‡]				
	RTP/RTSP/HTTP/TCP					M		M					
	RTP/RTSP/HTTPS/TCP									C	C		
	RTP/RTSP/TCP/WebSocket									C	O		
	RTP/UDP Multicast					C	C	M	C				

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ONVIF Conformant Products

- All conformant products are listed on the ONVIF website

- Only products listed here are guaranteed conformant

https://www.onvif.org/conformant-products/

Where to Get More Information

General information on ONVIF	www.onvif.org
Profiles	www.onvif.org/profiles/
List of conformant products	www.onvif.org/conformant-products/
Intro-videos	www.youtube.com/channel/UCiZl79oCHegiIFka4DAuMyQ

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Thank you

For more information visit **www.onvif.org**