

To connect to an ONVIF-compliant camera using the ONVIF protocol, follow these steps:

1. **Network Setup:** Ensure that the camera is properly connected to the network and has either a static IP address or is configured to obtain an IP address via DHCP.
2. **Discovering the Camera:** Use the `GetServices` API to discover the ONVIF services provided by the camera. Send a request to the camera's IP address to retrieve the list of available services.
3. **Retrieving Device Information:** Use the `GetDeviceInformation` API to retrieve basic information about the camera, such as the manufacturer, model, firmware version, and serial number.
4. **Fetching Profiles:** Use the `GetProfiles` API from the Media service to fetch the available profiles for the camera. Profiles define configurations for video streams, such as resolution, encoding, and frame rate.
5. **Obtaining Stream URI:** Use the `GetStreamUri` API to obtain the RTSP (Real-Time Streaming Protocol) stream URI for a specific profile. This URI can be used to access the live video stream from the camera.

Additionally, the document briefly mentions how to control PTZ (Pan-Tilt-Zoom) features using the `ContinuousMove` API and how to handle events using the `PullMessages` API.

By following the standardized ONVIF protocol and using specific SOAP-based APIs, you can communicate with an ONVIF-compliant camera, retrieve device information, access video stream profiles, control PTZ functions, and handle events. This ensures interoperability and ease of integration across different devices and platforms.