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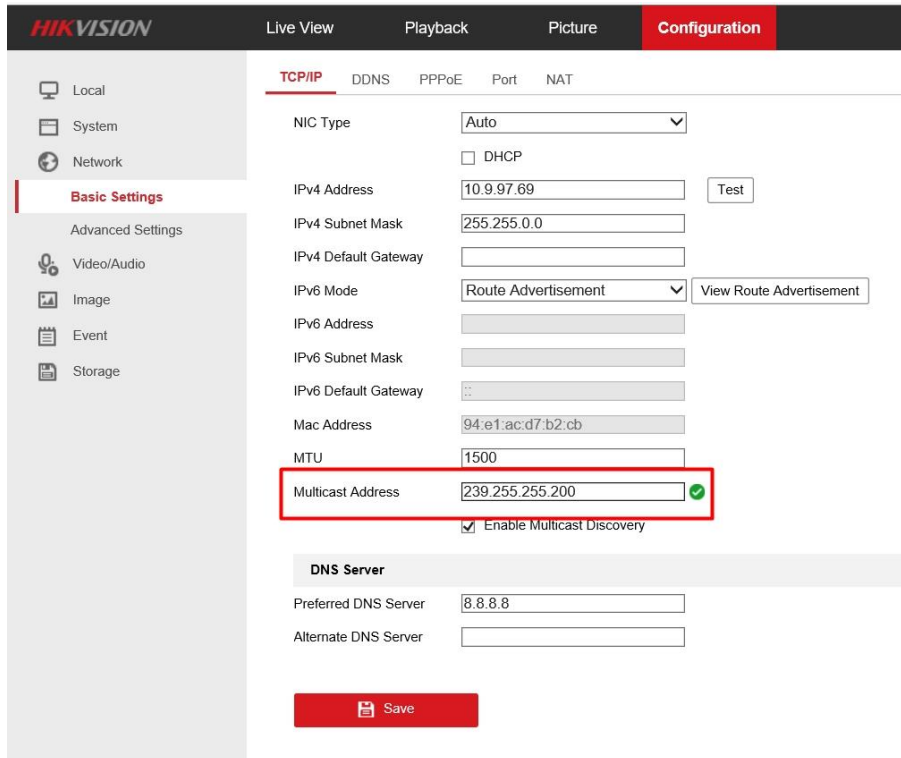| Title:	How to Preview IP Camera via Multicast Protocol	Version:	v1.1	Date:	20/03/2019
Product:	Cameras			Page:	1 of 4

Preparation

1. IP camera and PC must be on the same network segment
2. Switchers support multicast protocol while most routers doesn't support it by default, so extra configuration is necessary.

How to Preview IP Camera via Multicast Protocol

1. Set multicast address

Go to [Configuration]-[Network]-[Basic Setting]-[TCP/IP] to set multicast address, range of multicast address is from 224.0.0.0 to 239.255.255.255.
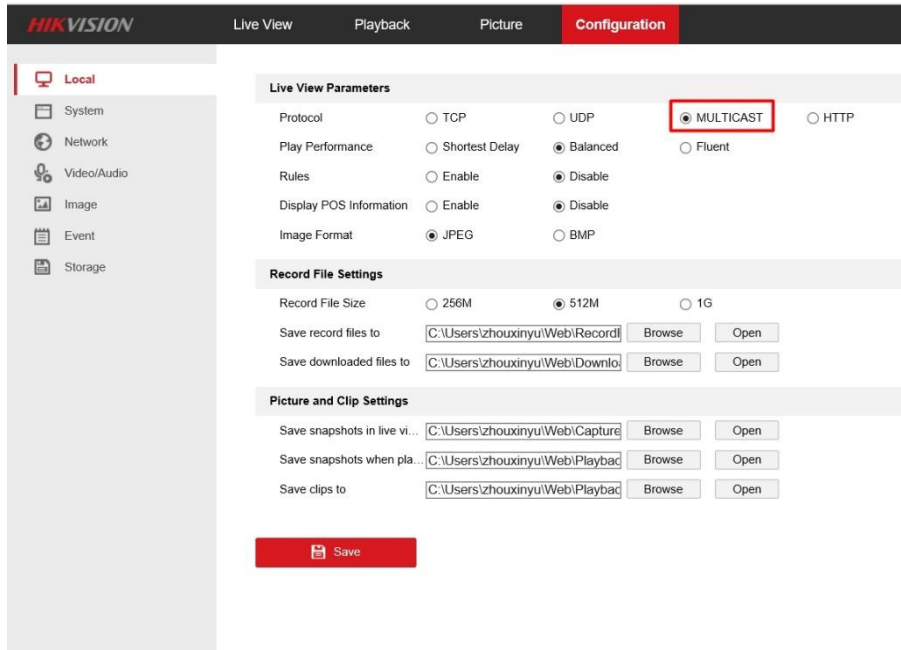

2. Set live view protocol

Go to [Local]-[Live View Parameters] and select MULTICAST as live view protocol

3. Start Live View

In terms of devices interaction, multicast protocol is only used to get stream during live view; otherwise the same as TCP/UDP.

Capture the package on Wireshark. It indicates that IP camera has joined in the multicast group and stream to the multicast address.

PC IP: 10.9.97.42, IP camera IP: 10.9.97.69, Multicast IP: 239.255.255.200

No.	Time	Source	Destination	Protocol	Length	Info
1867	18.333889	10.9.97.69	10.9.97.42	TCP	74	rtsp > 60874 [SYN, ACK] Seq=0 Ack=1 Win=28960 Len=0 MSS=1460 SACK_PERM=1 TSva
1868	18.334087	10.9.97.42	10.9.97.69	TCP	66	60874 > rtsp [ACK] Seq=1 Ack=1 Win=66560 Len=0 TSval=85431090 TSecr=1759725
1869	18.334562	10.9.97.42	10.9.97.69	RTSP	206	DESCRIBE rtsp://10.9.97.69:554/ISAPI/streaming/channels/101 RTSP/1.0
1870	18.335834	10.9.97.69	10.9.97.42	TCP	66	rtsp > 60874 [ACK] Seq=1 Ack=141 Win=30032 Len=0 TSval=1759725 TSecr=85431091
1871	18.337887	10.9.97.69	10.9.97.42	RTSP	250	Reply: RTSP/1.0 401 Unauthorized
1872	18.338303	10.9.97.42	10.9.97.69	RTSP	417	DESCRIBE rtsp://10.9.97.69:554/ISAPI/streaming/channels/101 RTSP/1.0
1873	18.343319	10.9.97.69	10.9.97.42	RTSP/SDP	623	Reply: RTSP/1.0 200 OK
1874	18.346314	10.9.97.42	10.9.97.69	RTSP	429	SETUP rtsp://10.9.97.69:554/ISAPI/streaming/channels/101/trackID=1 RTSP/1.0
1875	18.360992	10.9.97.69	10.9.97.42	RTSP	269	Reply: RTSP/1.0 200 OK
1876	18.371819	10.9.97.42	10.9.97.69	RTSP	452	PLAY rtsp://10.9.97.69:554/ISAPI/streaming/channels/101 RTSP/1.0
1877	18.373042	10.9.97.69	224.0.0.22	IGMPv3	60	Membership Report / Join group 239.255.255.200 for any sources
1878	18.402813	10.9.97.69	10.9.97.42	TCP	66	rtsp > 60874 [ACK] Seq=945 Ack=1241 Win=33248 Len=0 TSval=1759732 TSecr=85431
1879	18.494502	10.9.97.69	10.9.97.42	RTSP	194	Reply: RTSP/1.0 200 OK
1880	18.504422	10.9.97.69	239.255.255.200	UDP	1442	Source port: 8860 Destination port: 8860
1881	18.544534	10.9.97.69	10.9.97.42	TCP	66	60874 > rtsp [ACK] Seq=1241 Ack=1073 Win=65536 Len=0 TSval=85431301 TSecr=175
1882	18.559069	10.9.97.69	239.255.255.200	UDP	146	Source port: 8860 Destination port: 8860
1883	18.560041	10.9.97.69	239.255.255.200	UDP	106	Source port: 8860 Destination port: 8860
1884	18.560042	10.9.97.69	239.255.255.200	UDP	86	Source port: 8860 Destination port: 8860
1885	18.560942	10.9.97.69	239.255.255.200	UDP	78	Source port: 8860 Destination port: 8860
1886	18.560943	10.9.97.69	239.255.255.200	UDP	90	Source port: 8860 Destination port: 8860
1887	18.560945	10.9.97.69	239.255.255.200	UDP	62	Source port: 8860 Destination port: 8860
1888	18.560945	10.9.97.69	239.255.255.200	UDP	66	Source port: 8860 Destination port: 8860
1889	18.562043	10.9.97.69	239.255.255.200	UDP	1482	Source port: 8860 Destination port: 8860
1890	18.562046	10.9.97.69	239.255.255.200	UDP	1482	Source port: 8860 Destination port: 8860
1891	18.562048	10.9.97.69	239.255.255.200	UDP	1482	Source port: 8860 Destination port: 8860

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