## Sender-Receiver webRTC Connection.

**Currently, we have 2 conditions:**  
Condition1: Using localhost(http://)  
Condition2: Using filePath(file:///)  
  
Suppose this is the device specs:  
PC1: 192.168.128.10  
PC2: 192.168.128.11  
  
Gateway: 192.168.128.1  
DNS: 8.8.8.8/192.168.128.1  
  
This is what I think:  
**The main issue here is generation or gathering of ice candidates.**  
WebRTC libraries generates ICE candidates by gathering local host candidates(based on device IP address and network configurations). This WebRTC libraries are used by browsers, so the browser will generate these candidates when appropriate API called.

**Condition1: Using localhost(http://)**  
WebRTC works best in **secure contexts** (http:// or https://). When using http://localhost, the browser might treat it as a valid, semi-secure context. This might allow the browser to generate ICE candidates.

**Condition2: Using filePath(file:///)**

The browser may treat file:/// as an untrusted, insecure context and restrict WebRTC functionality. Or may be due to incomplete network setup (e.g., gateway and DNS), ICE candidate generation may fail.  
  
**For the condition2 Using filePath(file:///)  
We have another 2 sub conditions:**  
sub-condition1: Using Gateway and DNS  
sub-condition2: Without Gateway and DNS  
  
Without a **gateway/DNS**, the network configuration may appear incomplete to the browser. This could confuse WebRTC's ICE candidate gathering process, as the browser might not detect valid routes for network communication.  
  
Adding a **gateway and DNS** might provide a "complete" network configuration. This might allow the browser to properly identify the network interfaces and generate ICE candidates for local communication.