# FAQs on C-DOT IPFIX Probe for IPDR

1. What configuration we need to implement for activating CDOT IPFIX Flow ?

   **The IPFIX Probe designed and customized for IPDR will be connected to a gateway uplink using passive taps/Load Balancers (Already deployed by ISPs for IMS project). So, you need to just procure the probe from C-DOT. Commercials are to be decided depending on the configuration and other factors. Currently it is available for a national Cyber Security Project being rolled out across the country.**

2. Do we need to implement config into each device or implementing config on gateway/perimeter router will serve the purpose?

   **The Installation of the Probe is independent of ISPs network Devices and does not require any change in the configuration.**

3. How much is the storage capacity of BOX supplied by CDOT [Deployment Ready Box ] ?

   **It does not store any data and exports the generated metadata in real time to IPFIX collectors.**

4. What are the IPFIX Collector's?

   **Similar to Netflow collector, IPFIX collector is another software that receives the IPFIX flows from Probe and decodes the flows. The output can be stored on the disk and sent to any other application.**

5. What functionalities CIFP GUI will be offering i.e. Features/Options/advantages?

   **Management and configuration of Probe application.**

6. How CDOT IPFIX solution is complying DOT's IPDR regulations?

   **Generation and Providing the IPDR fields from the stream of packets in Internet traffic like Source IP, Source port, Destination IP, Destination port etc. (IPv4 and IPv6).**

7. Can we get demo/POC account which will help us to understand the overall solution offerings?

   **The reference document shared by DOT is the part of the demo given to DOT. The same was conducted earlier for ISPs**.

8. What will be commercial model for the sites where CDOT internet monitoring systems are already installed?

   **C-DOT has just developed it, the commercialization is based on the demand from ISPs that will be worked out on a cost-plus basis.**

9. We would like to do POC of this solution, please share feasibility.

   **You will have to decide how your IPDR solution is going to use the output of Probe or how it will be integrated. Pl discuss with your IPDR vendor or technical team. This is more suitable and cost-effective for large-scale ISPs for IPDR generation. For smaller ISPs or small bandwidth, please check the other options as mentioned in the document sent by DOT.**

10. What will be commercial model for the sites where CDOT internet monitoring systems are already installed? '

    **Already explained in the above clauses.**

11. Connectivity from IPFIX probe
    a. Interface type – **Gigabit Ethernet**
    b. Interface speed – **10G**
    c. Optical or Electrical- **We support both depending on the SFP type**
    d. Connectivity architecture – **There are two connectivity Input traffic on up to 4x100G ports to support 400G input traffic and output traffic for exported flows on up to 2x10G ports, Management port.**
    e. Communication protocol and port for sending data to IPDR collector – **The generated flows in IPFIX format are exported using UDP/TCP protocol at any configurable port.**

12. Volume of data per hour in GB or TB –

    **It will depend on the volume of Input traffic, characteristics of traffic like avg packet size and percentage of bidirectional traffic at the gateway. The probe can generate and export up to 1.2 million flows for 200G traffic.**

13. Data transfer rate per second from IPFIX probe –

    **It may take up to 2.5Gbps to export 1 Million flows/s.**

14. IPFIX file format being sent to collection server-

**Binary, IPFIX TCP/UDP packets.**

15. IP address of the IPFIX probes in ISP network –

    **It will be a dedicated probe for the ISP for IPDR project and can be configured using any IP (Private/Public).**

16. Recommended IPDR Collector server software

    a. Software packages – **Any IPFIX compliant collector owned by ISP or C-DOT can design the solution.**
    b. Recommended OS – **Linux**
    c. Recommended HW specifications – **Depending on the volume of generated and exported flows.**