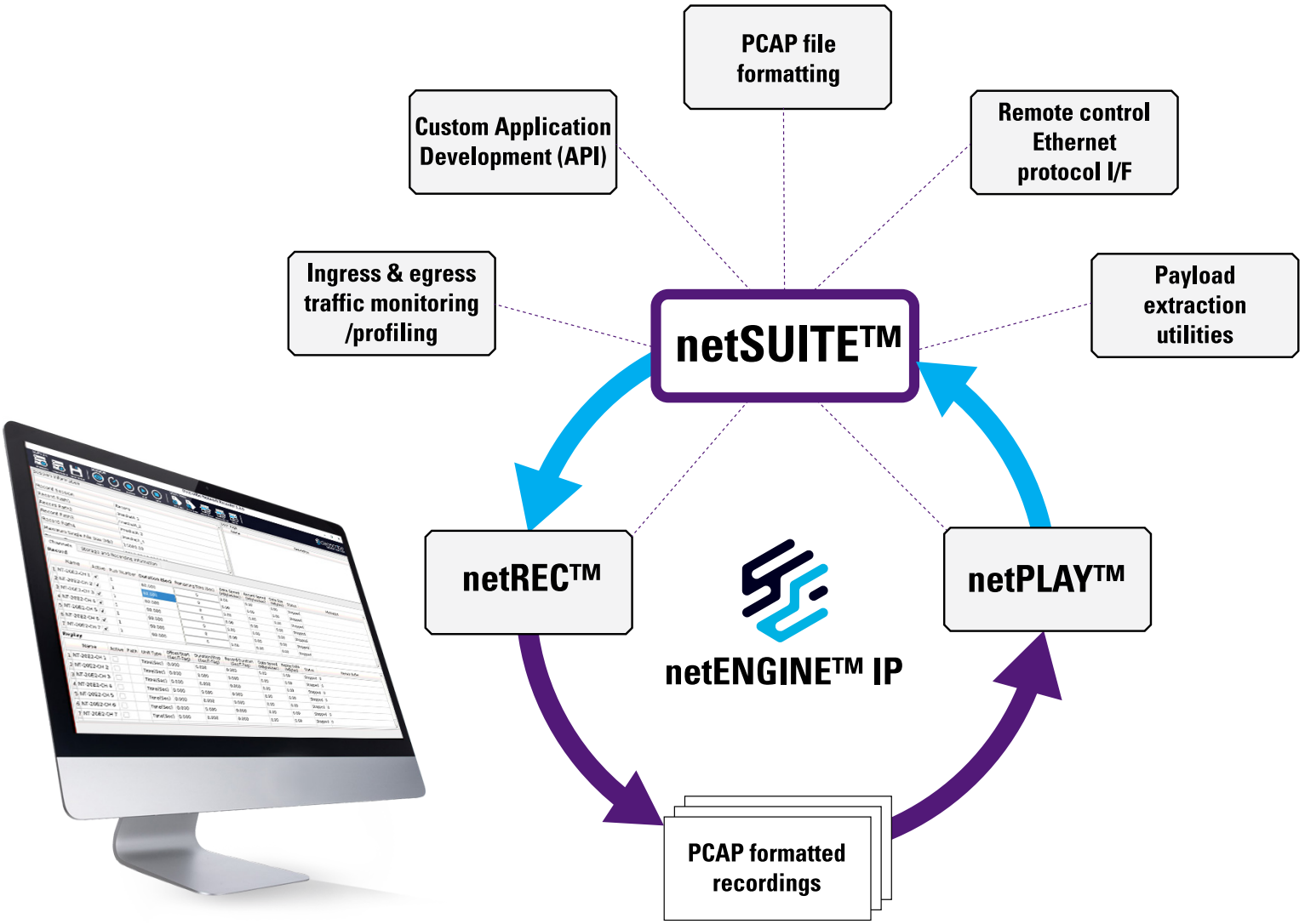
daqscribe
ETHERNET PACKET CAPTURE • RECORD • PLAYBACK

2021

netSUITE™ network operations tools

Network Engine IP + netSUITE™ ecosystem



Powerful. Efficient. Simple.

Our Ethernet packet recording successes start with the careful selection of hardware for integration into our products.

The end-to-end network data paths are then driven by our specially developed **network-engine IP**.

The result is a well-tuned Ethernet record and playback instrument, whose system functions are directed by one of our powerful software modules within **netSUITE™**.

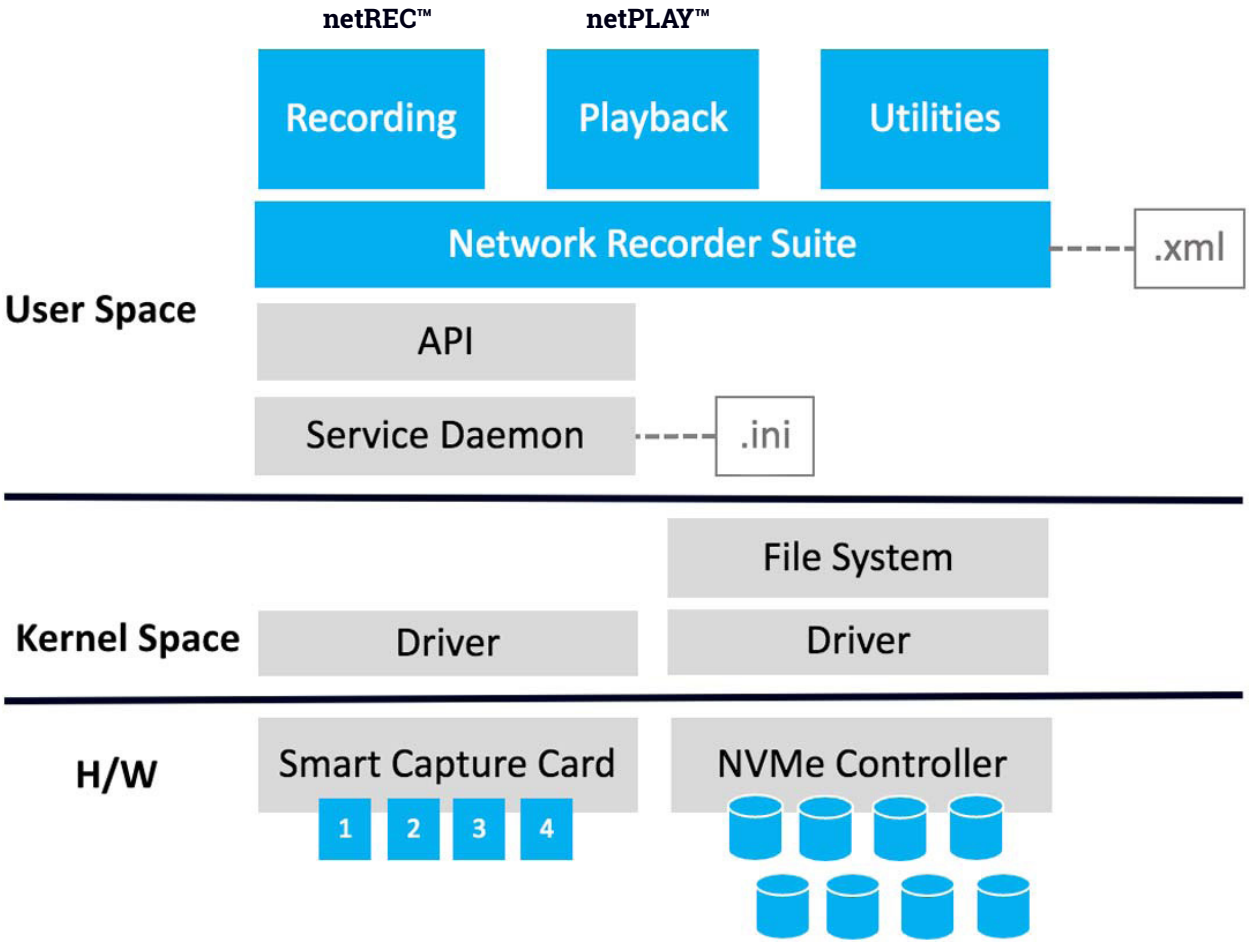
Operation workflows are easy to setup and manage from either your desktop or via API.

netREC™ and **netPLAY™** feature clear and concise GUIs, for consideration of both the advanced and novice users.

Your data can be found within our standard Linux file system, in **PCAP-format,** and on enterprise-grade solid-state storage.

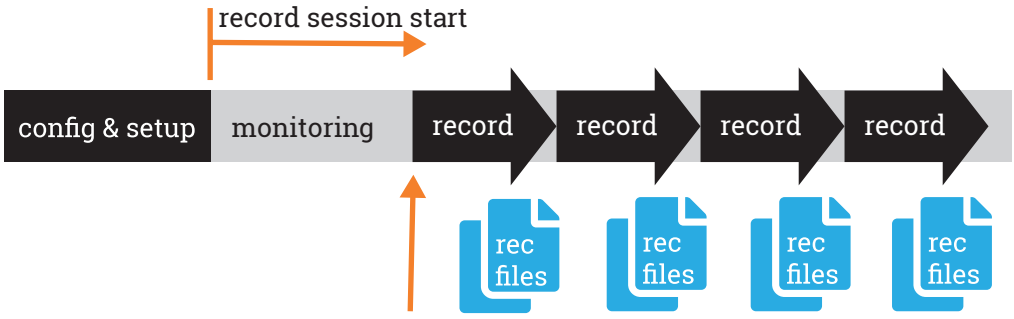
Network recording could not be made any easier!

netSUITE™ architecture



100% capture & record

- Capture protocol-agnostic layer 2 frames
- Select link ports or filtered streams to capture and record
- Record multiple sessions simultaneously
- Each recording can have single or multiple record file(s)
- Define single record file size limit
- Circular buffer record mode supports the whole storage volume as a circular buffer memory
- Recorded files are PCAP-style or PCAP format

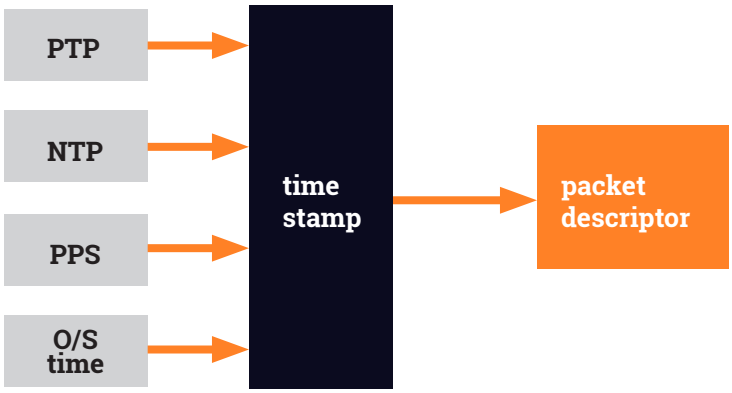


Record start

- manual software start
- predefined local computer time
- external H/W trigger

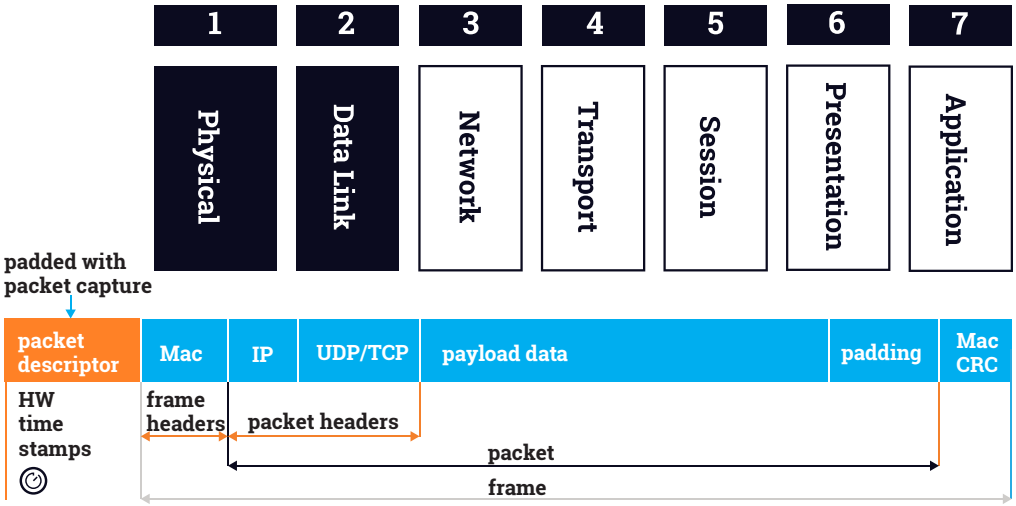
time sync

- Clock synchronization based on PPS input from a timing source, such as GPS or Grandmaster clock
- Reference Clock based on PTPv2 or NTP
- Generate a meta file containing recorded files associated with packet time-stamp and local computer time



100% playback

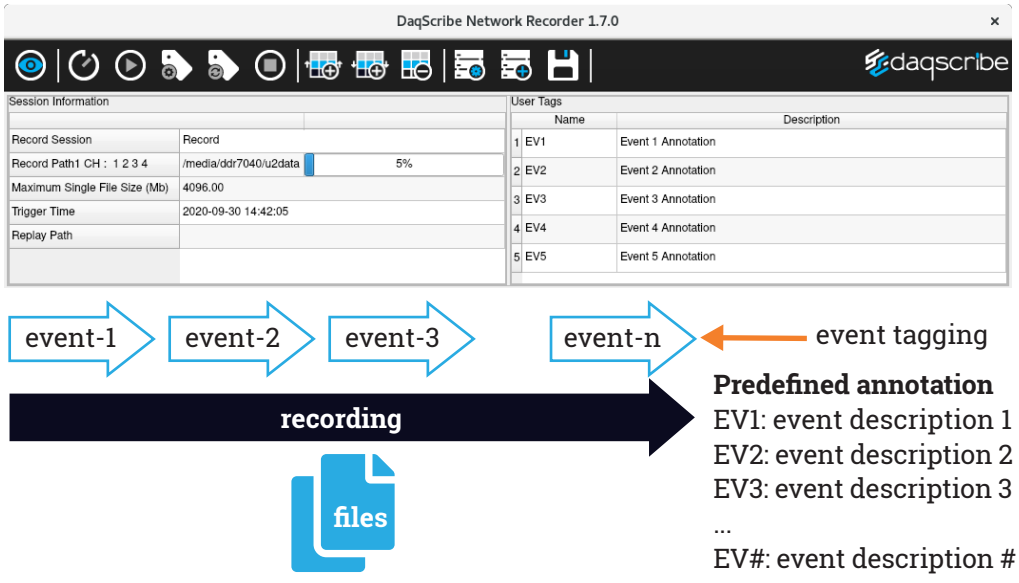
- Playback captured packet-frames
- Egress to layer 2 to regenerate network status as it was captured
- Playback speed control by FPGA, based on time-stamps of each packets
- Playback entire recorded time or specified duration



event text annotation

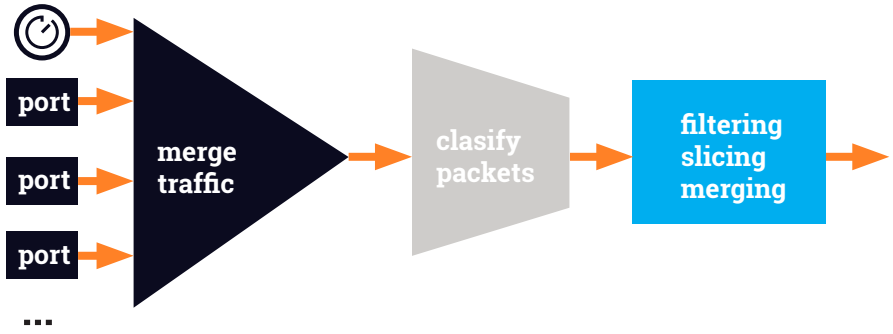
For a continuous long recording, there is a need for annotating events:

- Predefine user event annotation fields with a name and description
- Tagging each field during the recording creates a time-line annotation associated with a recorded file
- Easy to track down events along with associated files
- Tagging with remote operation command



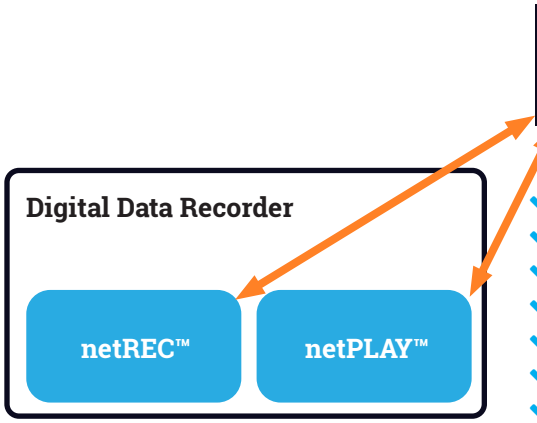
smart inline processing

- Supports FPGA based packet filtering
- Filtering based on
  - Protocol
  - IP Match
  - Data fields
  - Length
  - Error
  - Ports
  - Slicing
- Port data merging



remote operations

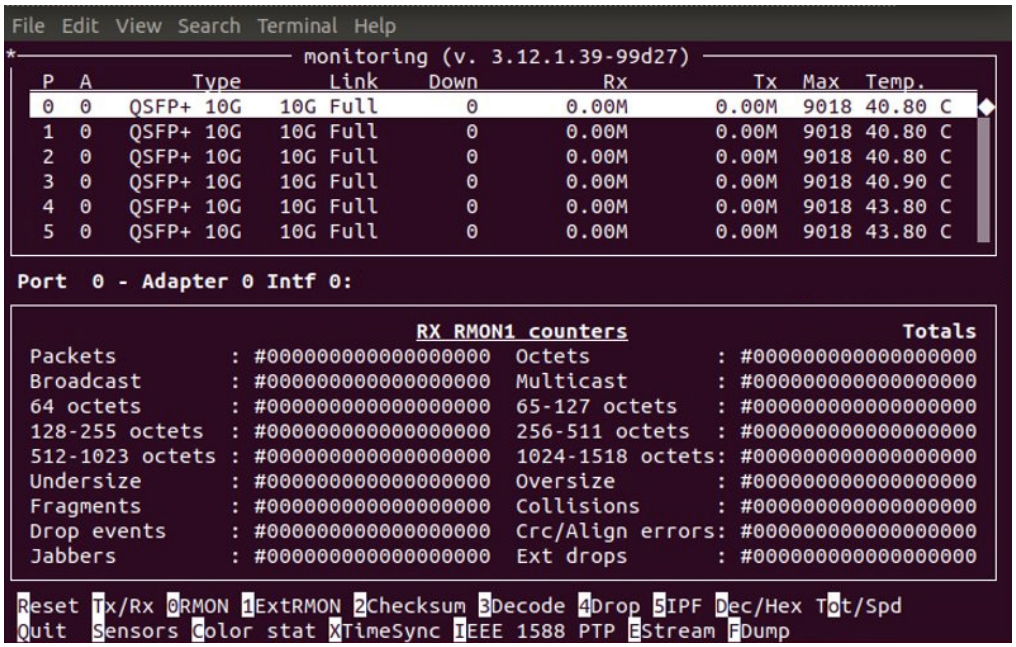
- Support remote control of **netREC™** and **netPLAY™**
- Standard network socket programming
- Simple UDP command sets



- GET_STATUS
- START_RECORDING
- STOP_RECORDING
- REMANING_RECORD_TIME
- REPLAY_CURRENT_BY_DURATION
- REPLAY_CURRENT_BY_LENGTH
- REPLAY_FILE_BY_DURATION
- REPLAY_FILE_BY_LENGTH

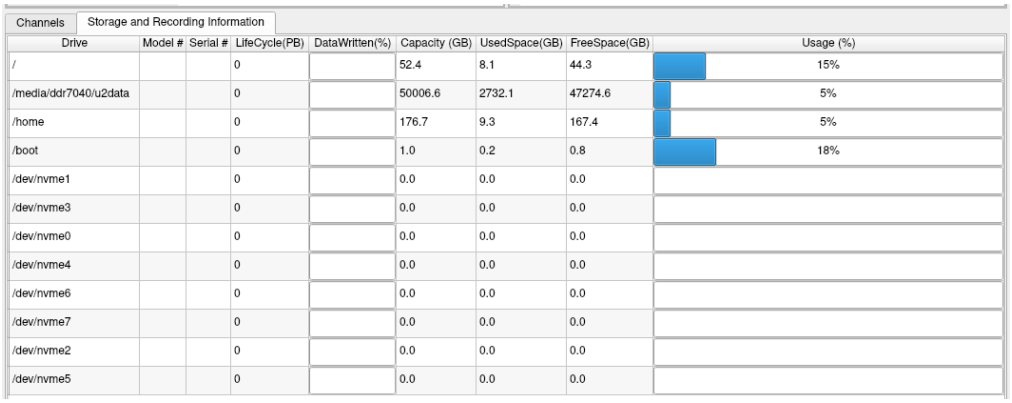
Ethernet link monitoring

- Real-time status of link connection and speed
- RMON1 statistics
- RMON1 contains statistics on Layer 1 and 2, such as packets dropped/sent, broacast/multicast packets, CRC errors, collisions, counters for packets.



Storage life cycle management

- Life cycle management of enterprise SSDs
- Retrieve usage information from SSD firmware
- Indicate life cycle comparing with TBW (Total Bytes Written)



Channels | Storage and Recording Information

Drive	Model #	Serial #	LifeCycle(PB)	DataWritten(%)	Capacity (GB)	UsedSpace(GB)	FreeSpace(GB)	Usage (%)
/			0		52.4	8.1	44.3	15%
/media/ddr7040/u2data			0		50006.6	2732.1	47274.6	5%
/home			0		176.7	9.3	167.4	5%
/boot			0		1.0	0.2	0.8	18%
/dev/nvme1			0		0.0	0.0	0.0	
/dev/nvme3			0		0.0	0.0	0.0	
/dev/nvme0			0		0.0	0.0	0.0	
/dev/nvme4			0		0.0	0.0	0.0	
/dev/nvme6			0		0.0	0.0	0.0	
/dev/nvme7			0		0.0	0.0	0.0	
/dev/nvme2			0		0.0	0.0	0.0	
/dev/nvme5			0		0.0	0.0	0.0	

OS support

Redhat 7, 8

Ubuntu 18.04 & 20.04

CentOS 7, 8

Daqscribe recorder selection

model name	product name	storage capacity	link speed / number of ports supported			
			100GbE	40GbE	25GbE	10GbE
DDR7000-Rx series	Industrial rackmount Ethernet recorders	25TB, 38TB, 50TB, 76TB, 120TB, 153TB, 180TB, 1PB	2	4	6	16
DDR70x-Mini series	Industrail miniature Ethernet recorders	3TB, 6TB, 12TB, 25TB, 30TB, 60TB		1	2	4
RDR7000-R series	Rugged rackmount Ethernet recorders	25TB, 38TB, 50TB, 76TB, 120TB, 153TB, 180TB,	2	4	6	16
RDR70-Mini series	Rugged miniature Ethernet recorders	3TB, 6TB, 12TB, 25TB, 30TB, 60TB		1	2	4

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