Napatech

Reconfigurable Computing

STAC Summit New York
13 June 2018

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Sales Director NA Enterprise

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Napatech helps companies to reimagine their business, by bringing hyper-scale computing benefits to IT organizations of every size. Our Reconfigurable Computing Platform™ is based on a broad set of FPGA software for leading IT compute, network and security applications.

Napatech
at a glance

- World leader in Reconfigurable Computing Solutions
- 15+ years' experience in accelerating network management and security applications
- Preferred choice of tier 1 vendors globally
- Public company NAPA.OL

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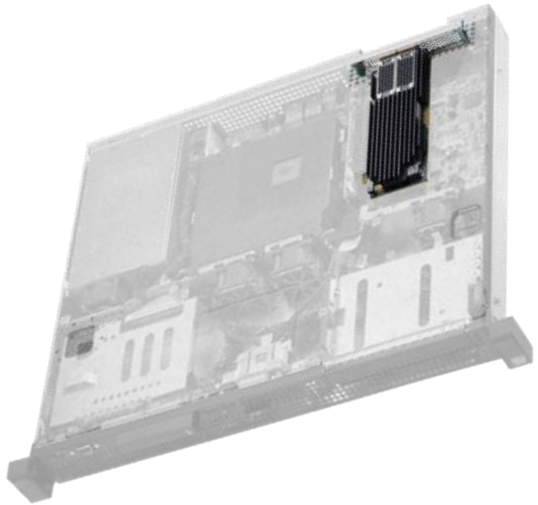
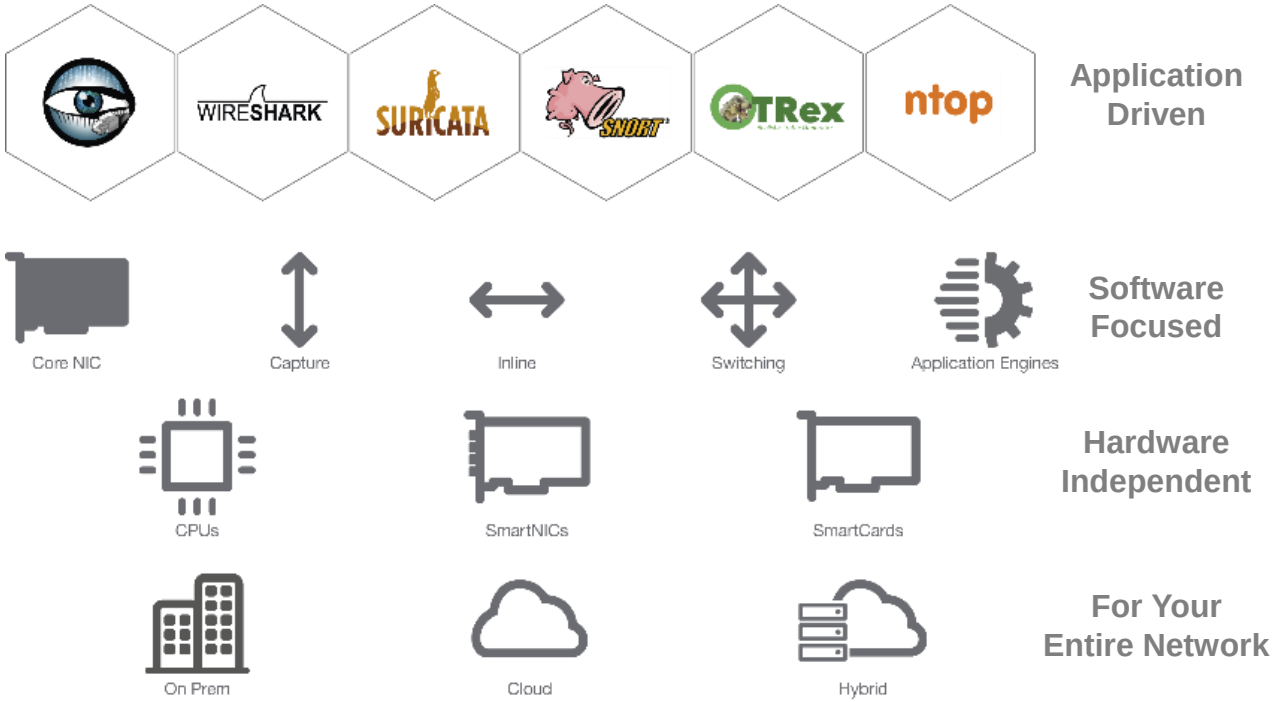
Napatech Reconfigurable Computing Platform

RECONFIGURABLE COMPUTING PLATFORM™





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Enabling World-class Industry Solutions

Telecom Operators

- SLA
- Session logging
- Bandwidth forecasting

Financial Services

- Low latency monitoring
- Performance monitoring
- Regulatory compliance

Cloud and Data Center

- SLA
- Security integrity
- High bandwidth

Infrastructure and Defence

- Forensic analysis
- Policy compliance
- SIEM Compliment

PAIN POINTS ACROSS INDUSTRIES

Loss of packets in high-speed networks - lack of evidence when an incident occurs - difficulty extracting the right information

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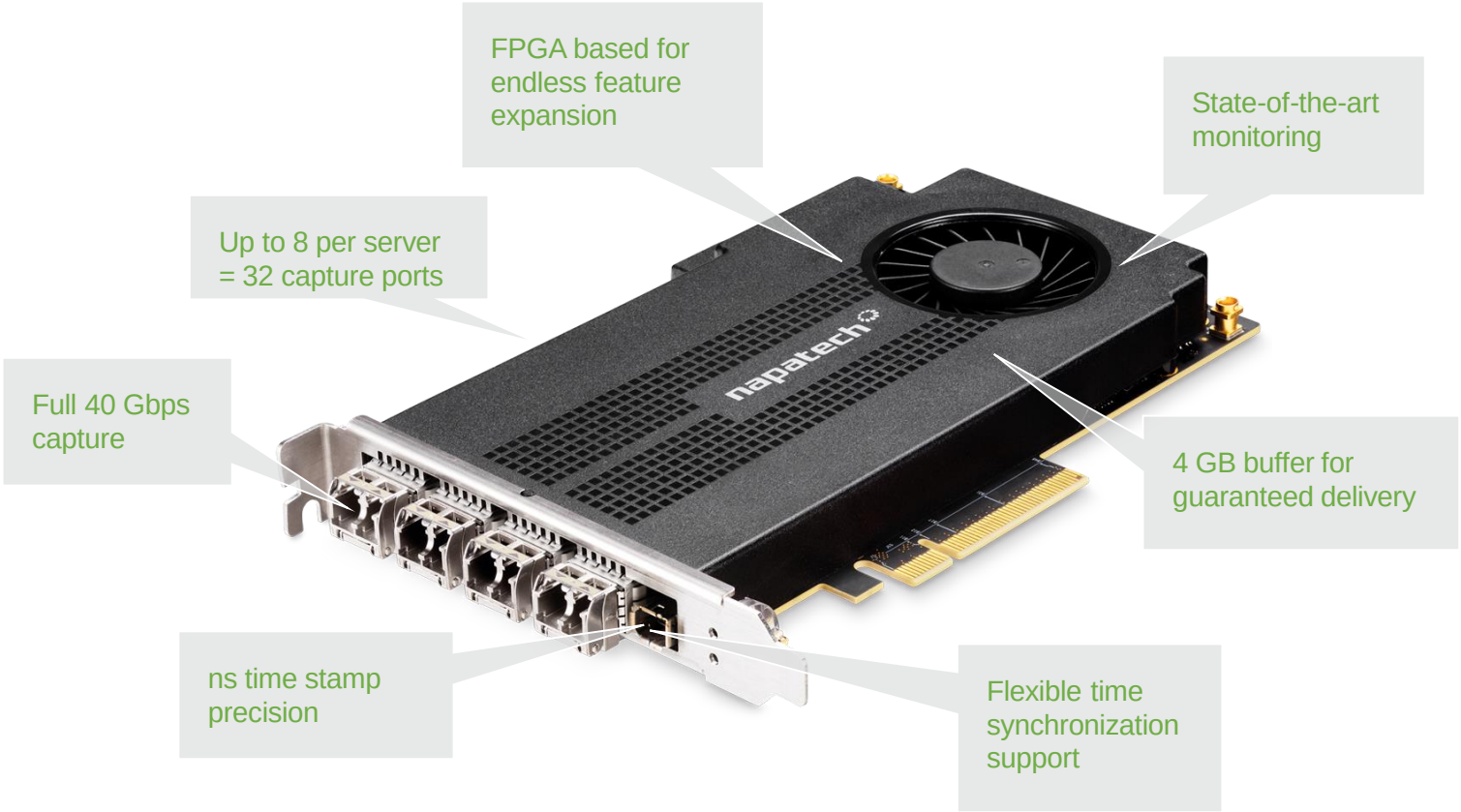
FPGA based SmartNICs for high performance

Napatech SmartNICs are world-class high-reliable FPGA adapters for standard COTS servers.

- Features zero packet loss
- Features advanced timesync
- Features multi-adapter support
- Features large onboard host buffer for long microburst support
- FPGA based for advanced feature expansion through simple software
- Offers many types of port configuration options



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FPGA based SmartNICs - Virtualized Support

Napatech NFV NIC is a versatile and flexible platform that supports multiple acceleration solutions for virtualized environments.

- Accelerate performance of multiple data and compute intensive virtual functions with minimal CPU load and low latency
- Versatile solution that can be deployed from edge to core supporting full theoretical throughput from 1G to 200G
- Software reconfigurable on-the-fly to adapt to dynamic virtual environment demands

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FPGA based Packet Capture – hardware independent

Napatech Pandion is a scalable network recording application that captures, stores and retrieves all network data on demand, enhancing management and security applications across industries.

- Focus on stand-alone network recording – freedom to pick and choose analytics
- Powerful yet simple data extraction
- Zero packet loss at sustained line rates, 100% guaranteed data integrity
- Continuously collects your critical network data for forensic analysis
- Scale storage – begin at a low tier, grow by simple addition
- Scale capture rate – upgrade when needed

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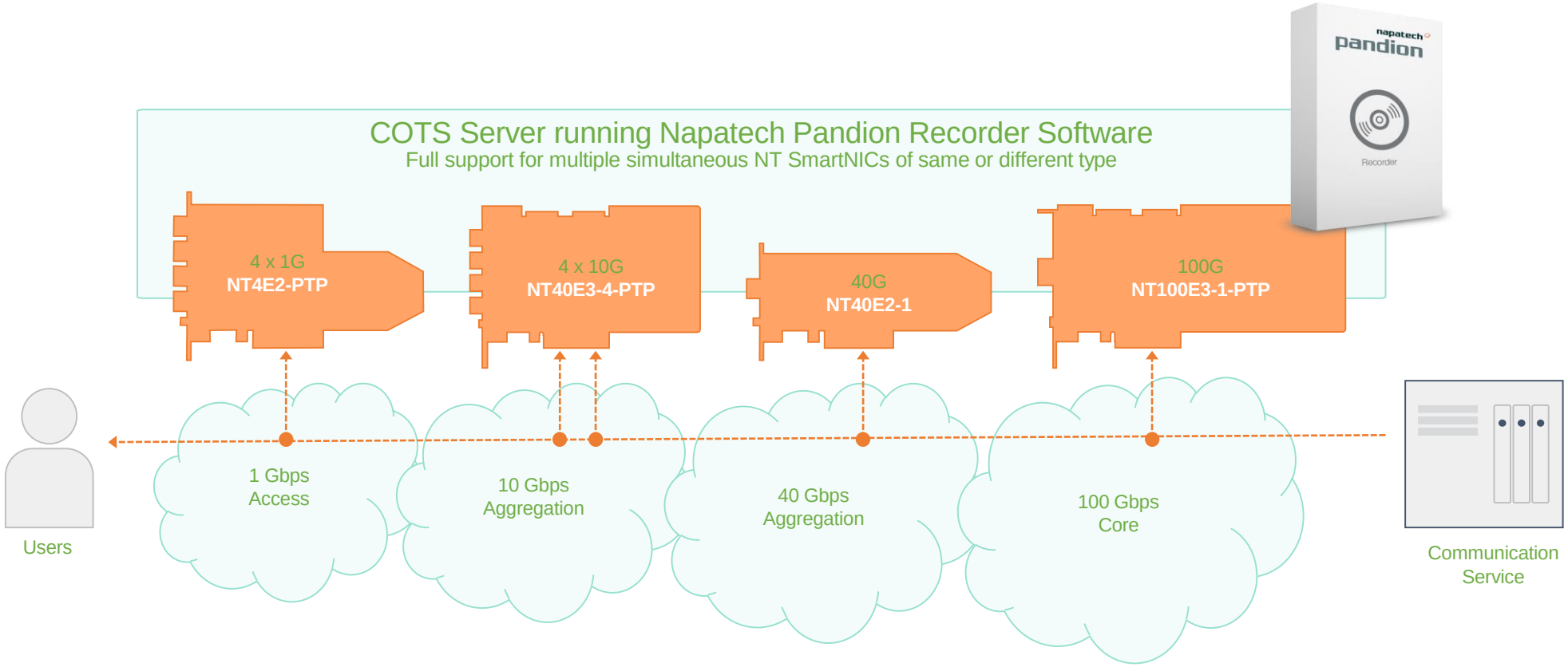
Scale Capture to Disk to fit your network needs

Utilize SmartNIC portfolio to match your infrastructure



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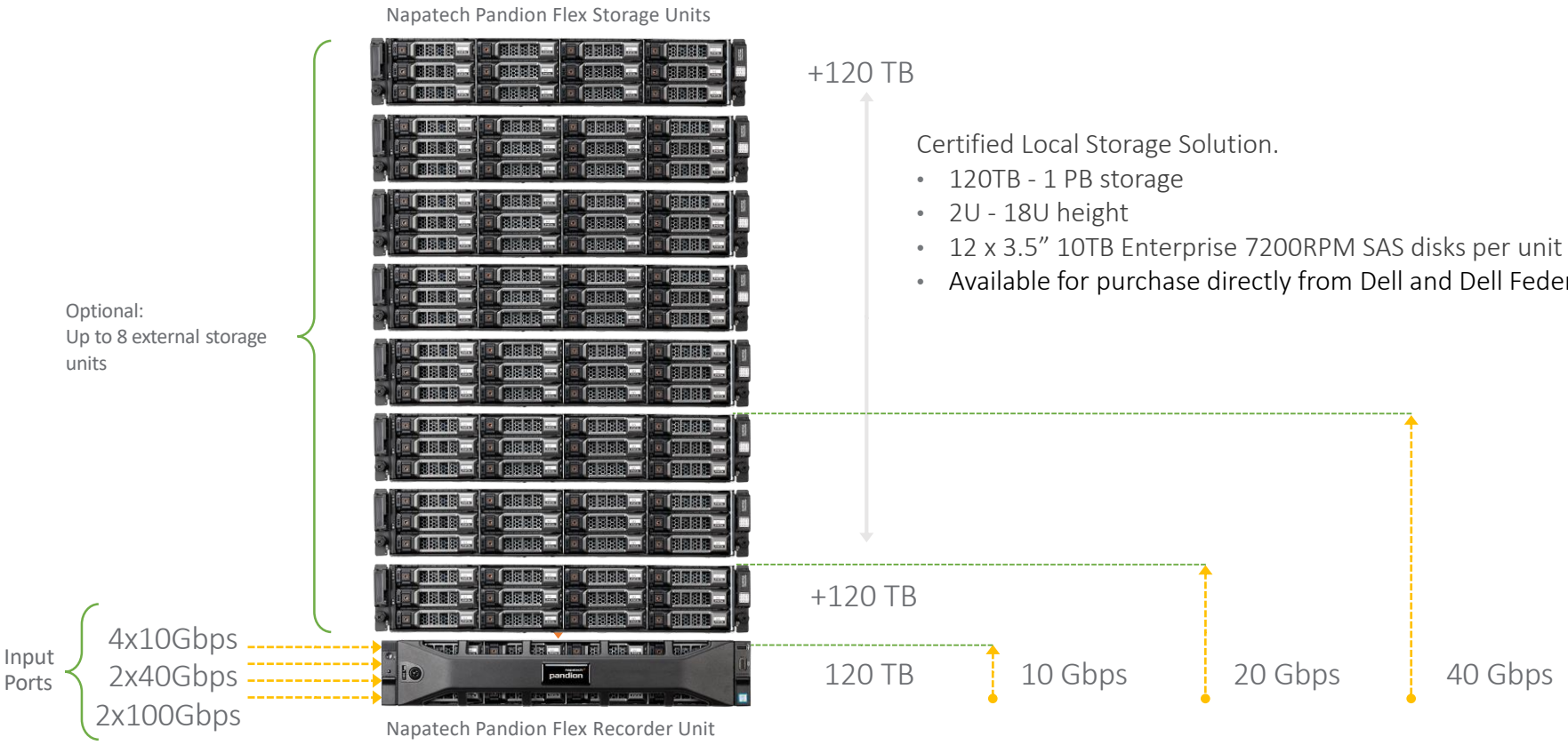
Napatech Pandion Recorder Appliances

- Based on Dell R730XD enterprise servers

Certified 40Gbps solution: Dell R730XD with Dell MD1400 Direct Attached Storage units



Certified Local Storage Solution.

- 120TB - 1 PB storage
- 2U - 18U height
- 12 x 3.5” 10TB Enterprise 7200RPM SAS disks per unit (RAID5 / chassis)
- Available for purchase directly from Dell and Dell Federal

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Scripting Friendly
Powerful RESTful API for quick integration

JSON based RESTful interface over HTTPS

cURL examples

You can use the cURL command line tool to query the Pandion API.

cURL is available on several platforms and the following examples are run on a Linux platform.

In this example, the Napatech Pandion unit is asked to identify itself, by sending an HTTP GET command to the `/1/self` endpoint:

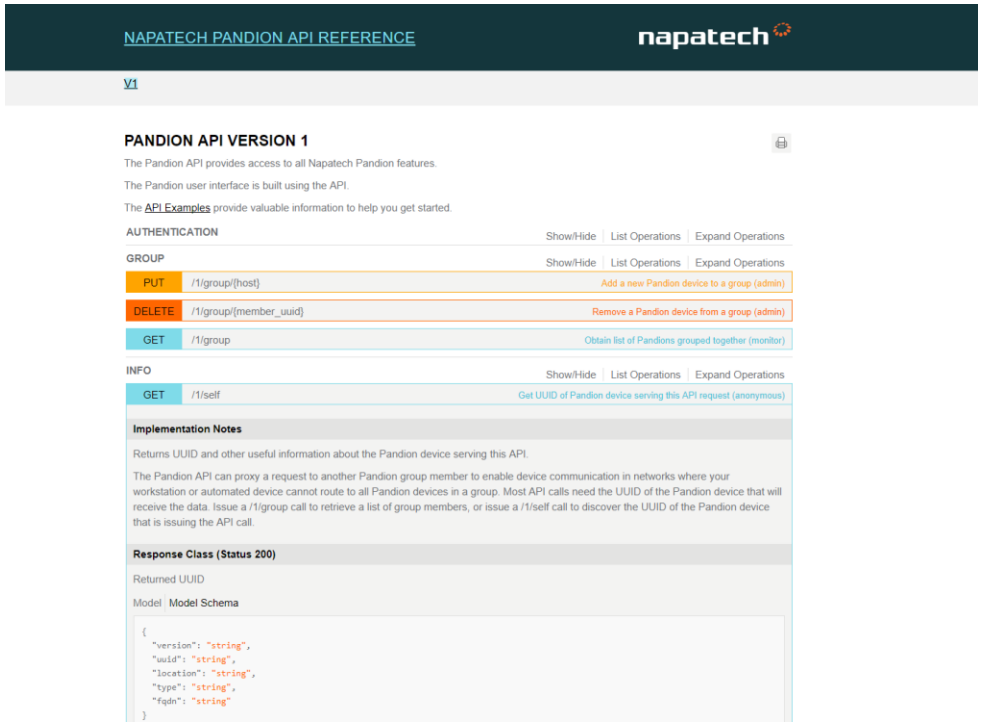
```
$ curl -k https://<IP-address>:443/1/self
> {
   "uuid": "4c4c4544-0032-3210-804c-c7c04f4a3332",
   "version": "1.0.0",
   "type": "Pandion20",
   "location": "Pandion",
   "fqdn": "pandion.example.com"
}
```

Python examples

You can use Python for more extensive tasks, as shown in the following examples.

```
import httplib
import base64
import ssl

conn = httplib.HTTPSConnection('10.10.10.11', 443)
conn._context.check_hostname = False
conn._context.verify_mode = ssl.CERT_NONE

headers = {}
headers['Authorization'] = \
    "Basic %s" % base64.standard_b64encode("admin:pandion")

req = conn.request('GET', '/1/me', headers=headers)
res = conn.getresponse()

print res.read()
```

Fully Interactive API for learning and troubleshooting.



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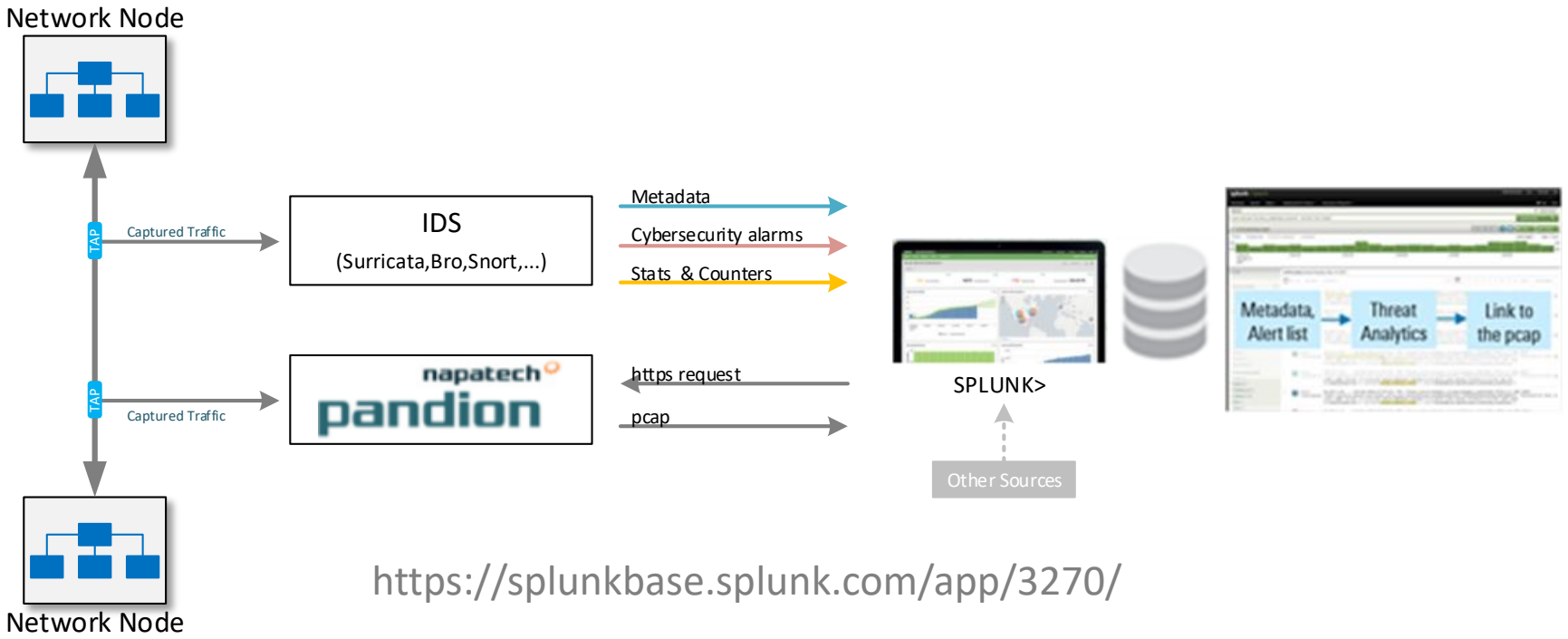
Classic SIEM with SPLUNK> dashboard



https://splunkbase.splunk.com/app/3270/

Pandion Recorder REST interface can connect to any other REST compatible SIEM system

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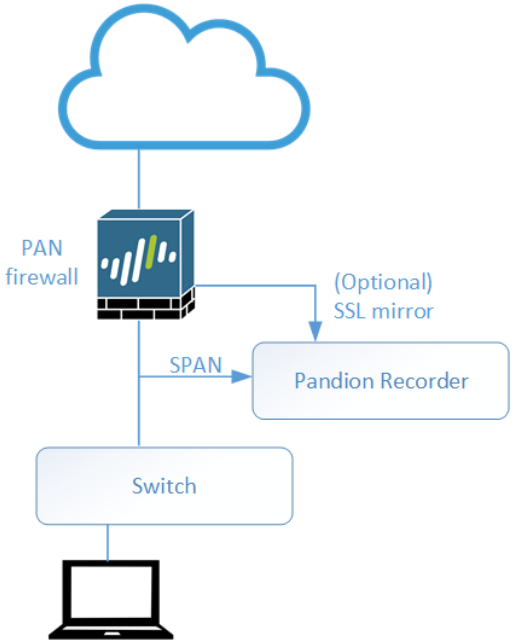
Palo Alto Firewalls with Pandion Recorder

For powerful forensics and data exfiltration monitoring

Wiring the two:



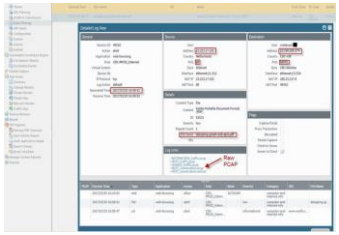
And configure:

The PAN log-link command could look like:

```
# set deviceconfig system log-link Pandion-pcap
https://<pandion_ip>/#/search/<uuid>?sip={src}&dip={dst}&sport={sport}&
dport={dport}&proto={proto}
```

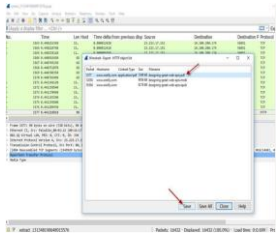
Using Template magic to craft 5-tuple into a Pandion GET request

Giving this user flow

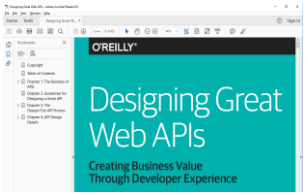


❶ PAN Event view

❷ Query Dialog



❸ Wireshark



❹ Get File

Above user flow can be fully automated through simple scripting

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High-growth applications that benefit

Cyber Security	Big Data	Mobile	Infrastructure	Testing
Firewall **Next-Gen Firewall** **Intrusion Detection** **Intrusion Prevention** **Forensics** **Threat Detection** **Secure Web Gateway** **Surveillance** **Data Loss Prevention**	**Analytics** **Trading** **Recording**	**5G** **CORD** **vEPC** **vIMS**	**Load Balancer** **SD-WAN** **V-CPE** **SDN Gateway** **Packet Broker** **Network Taps**	**Quality of Experience** **Service Assurance** **Performance Monitoring**

Over 10M NICs sold per year
in servers and appliances

Napatech's Reconfigurable Computing Platform flexibly offloads, accelerates and secures standard servers based on a broad set of FPGA software for leading IT applications supported on an wide array of hardware

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