STAC Innovation Roundup: Fast Workloads SolarCapture Family

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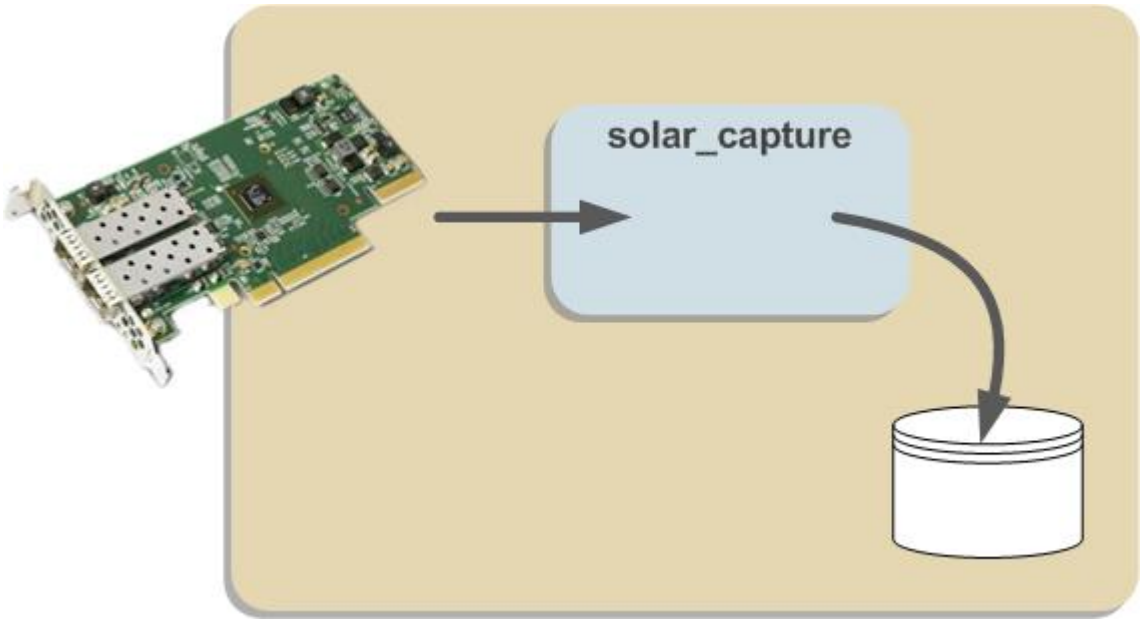
Solarflare

What is SolarCapture?

- ***Capture*** packets and write to disk…




```
solar_capture eth2=eth2.pcap format=pcap-ns snap=100
```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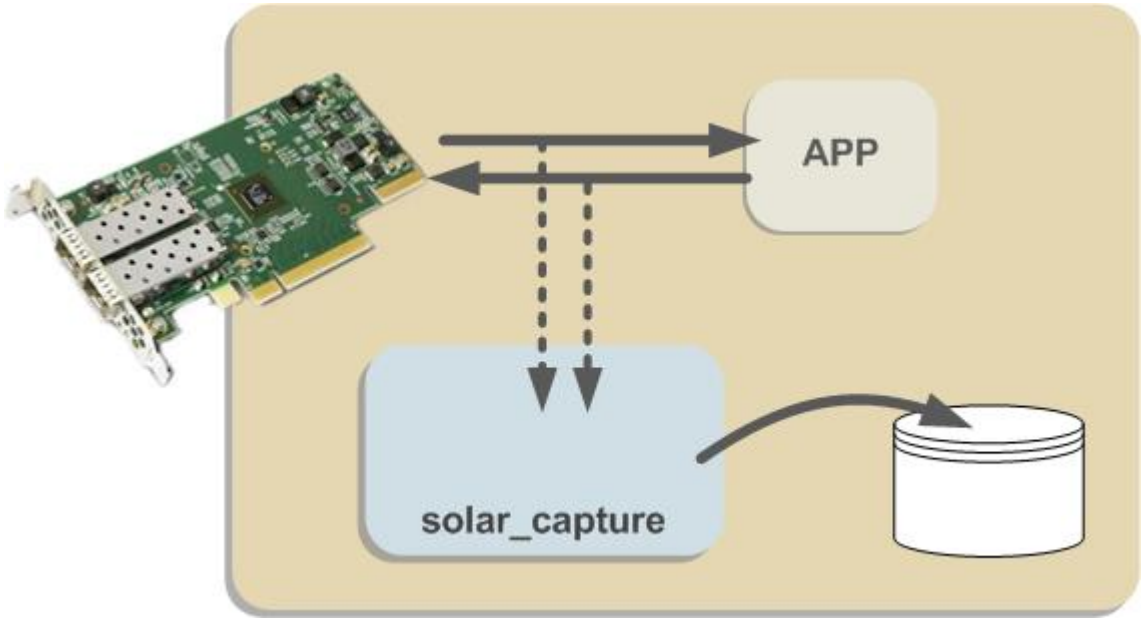
What is SolarCapture?

- ***Sniff*** packets and write to disk…
- Hardware timestamps: 8ns resolution & precision




```
solar_capture eth2=eth2.pcap mode=sniff
```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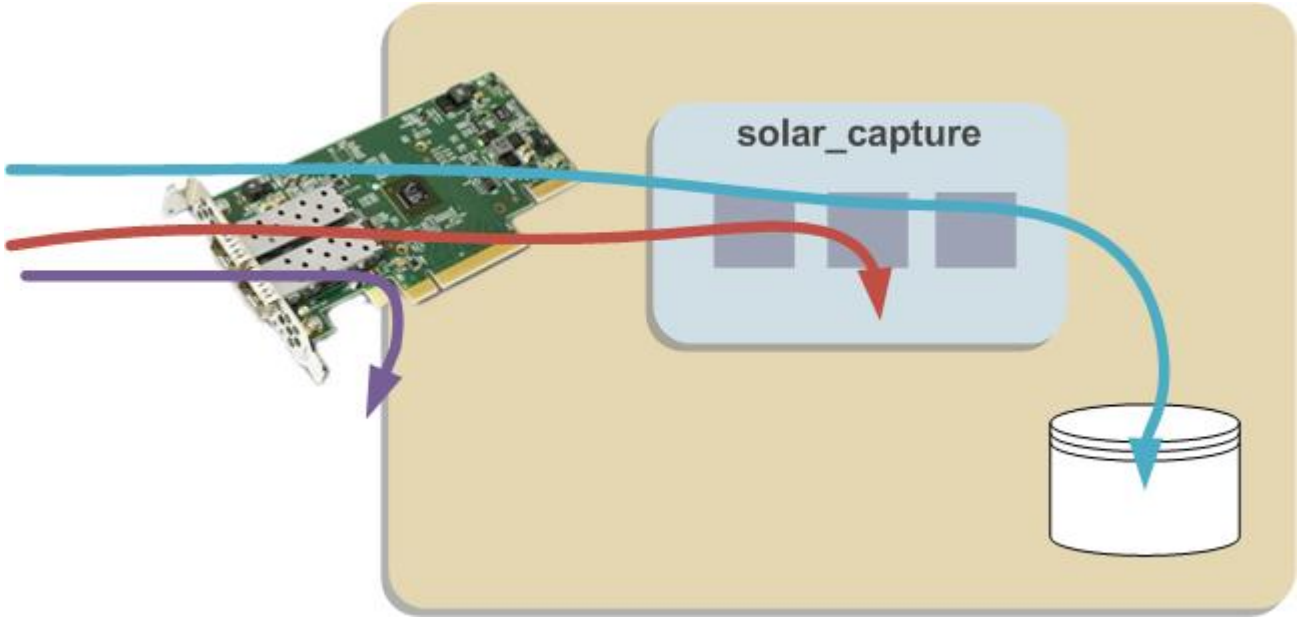
What is SolarCapture?

- ***Filter*** in hardware and in software…




```
solar_capture … streams=lport=80 filter=…
```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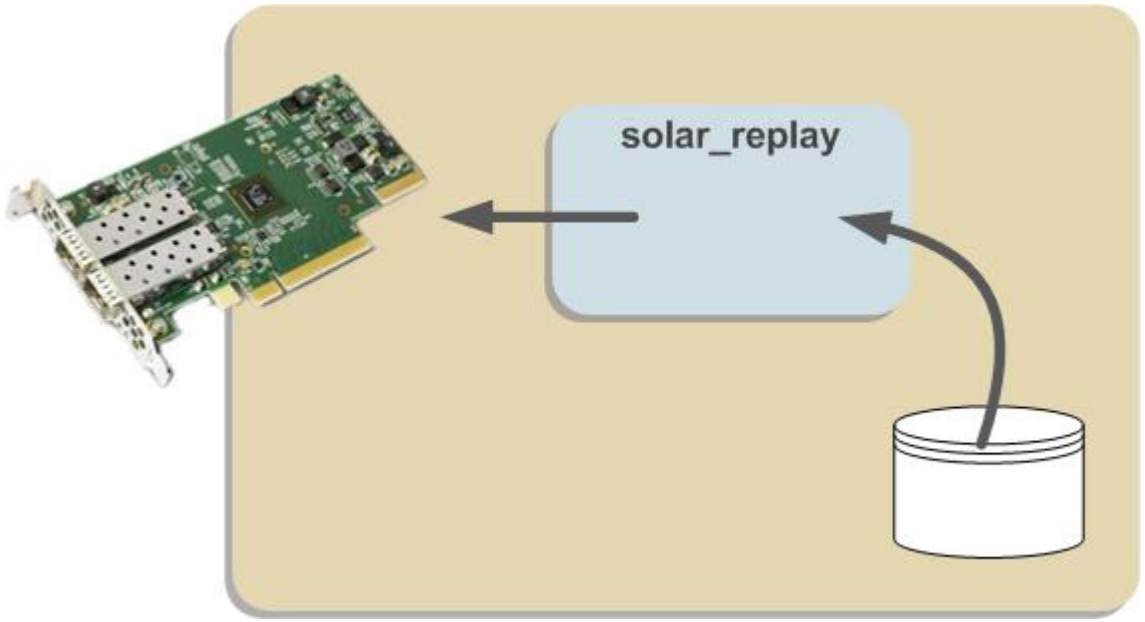
What is SolarCapture?

- ***Replay*** packets with high fidelity…




```
solar_replay eth2=source.pcap speedup=2.5
```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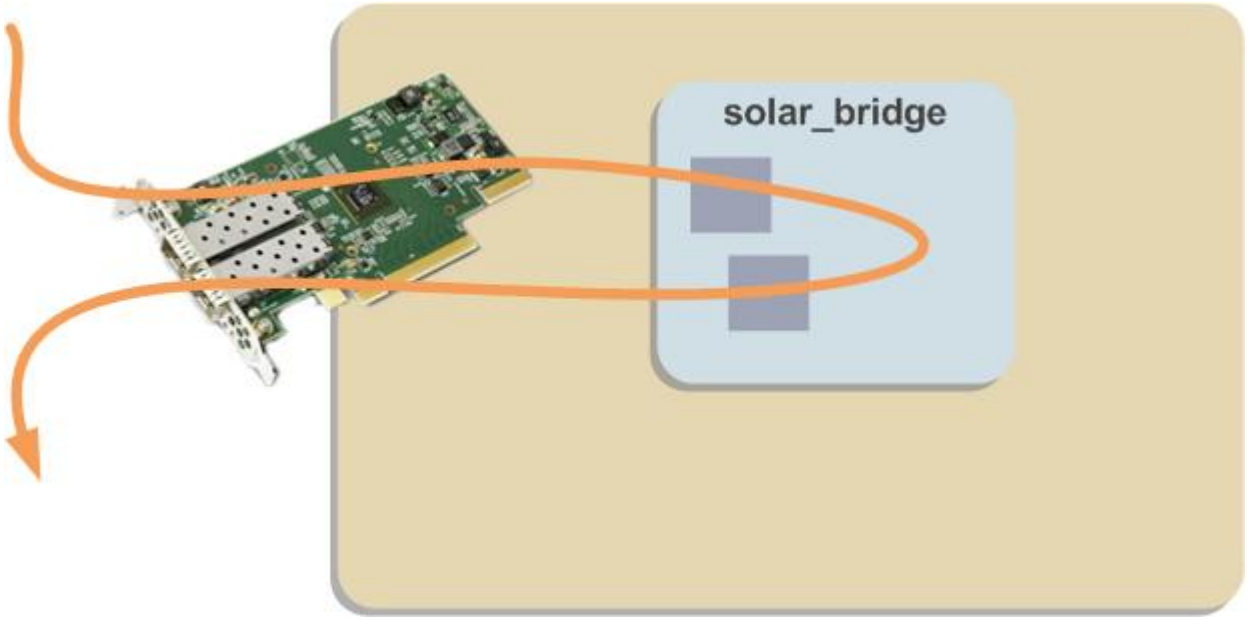
What is SolarCapture?

- ***Bridge*** networks…




```
solar_bridge eth2,eth3
```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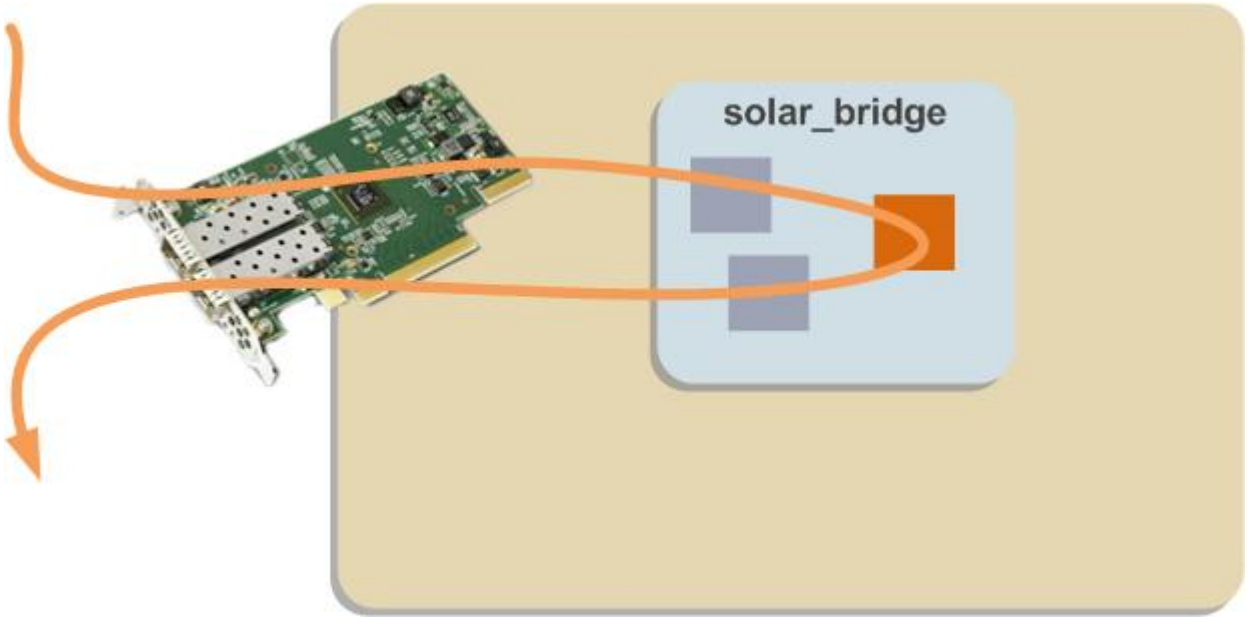
What is SolarCapture?

- ***Bridge*** networks…with filtering…




```
solar_bridge eth2,eth3 filter=…
```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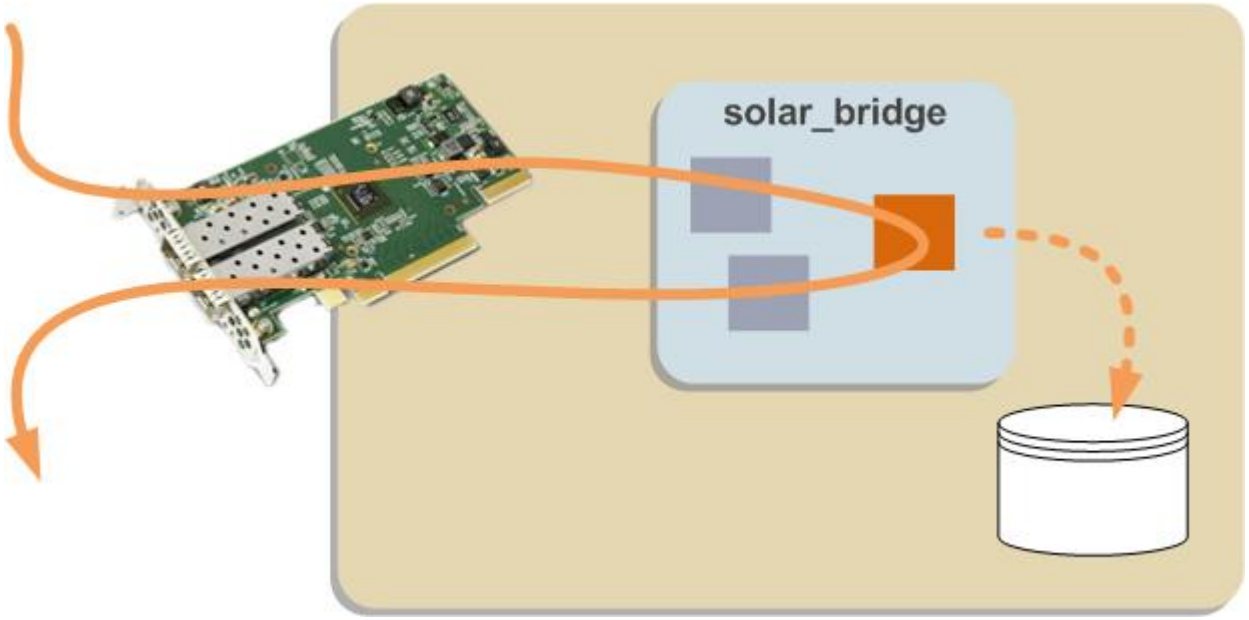
What is SolarCapture?

- ***Bridge*** networks…and save a copy disk…




```
solar_bridge eth2,eth3 writeout=save.pcap
```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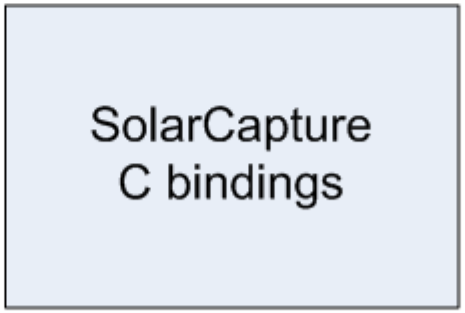
At its core…a C library



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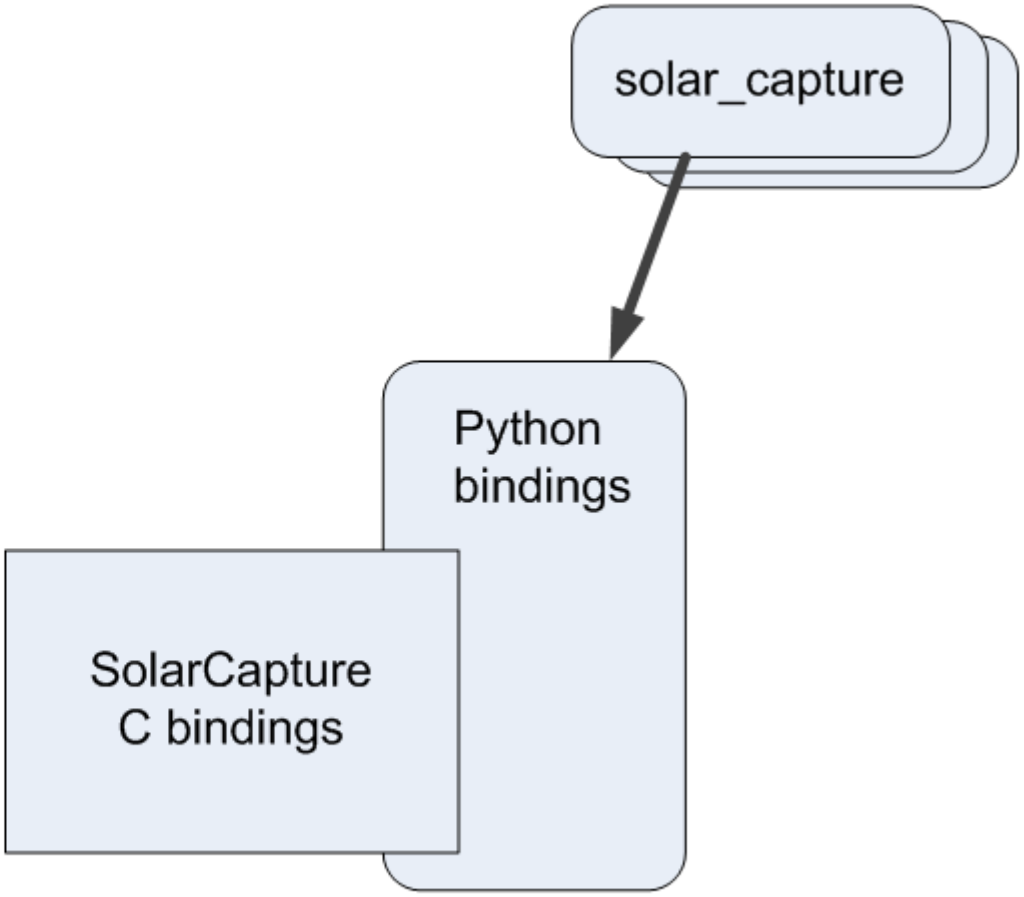
Python bindings and tools



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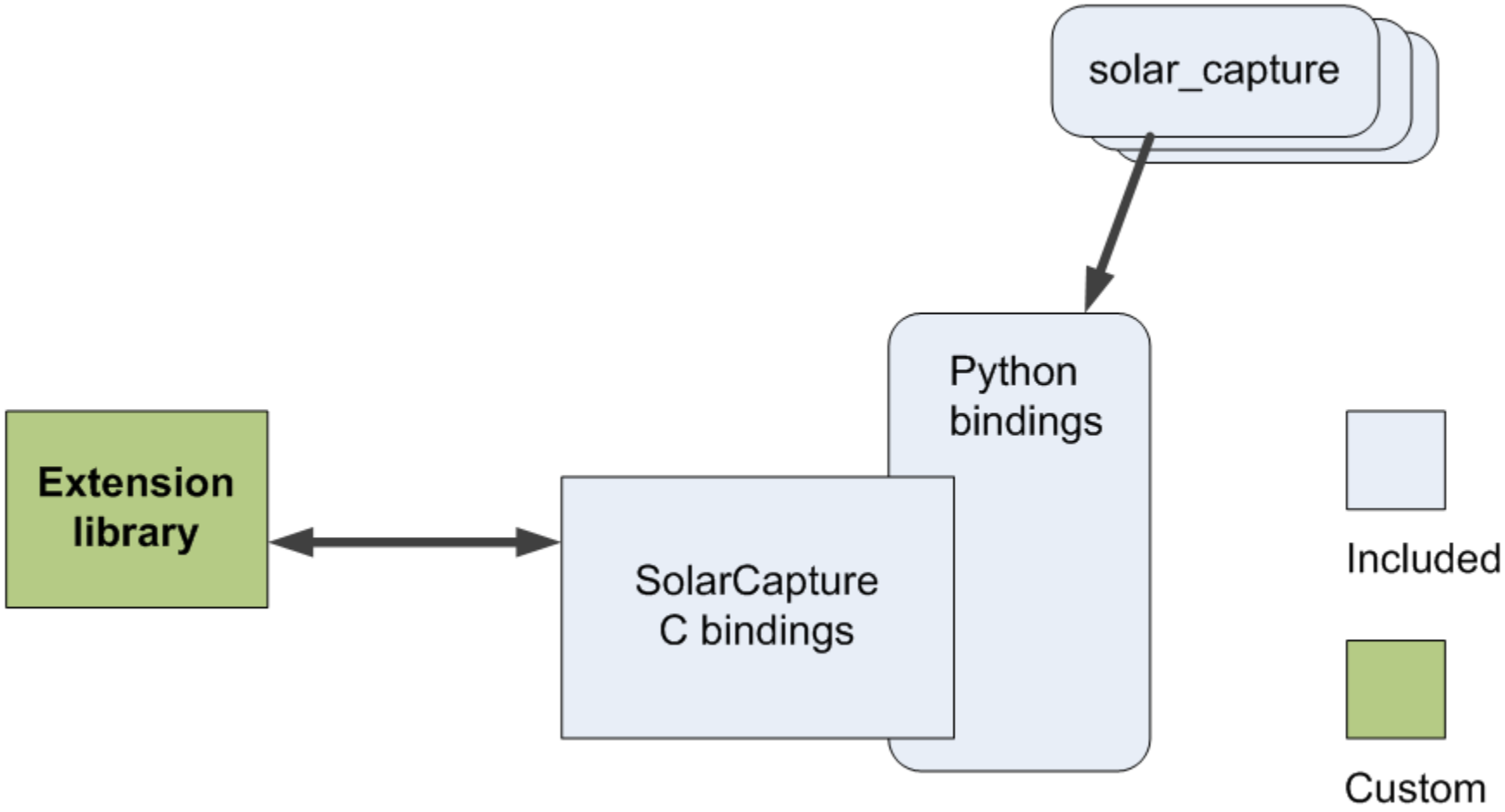
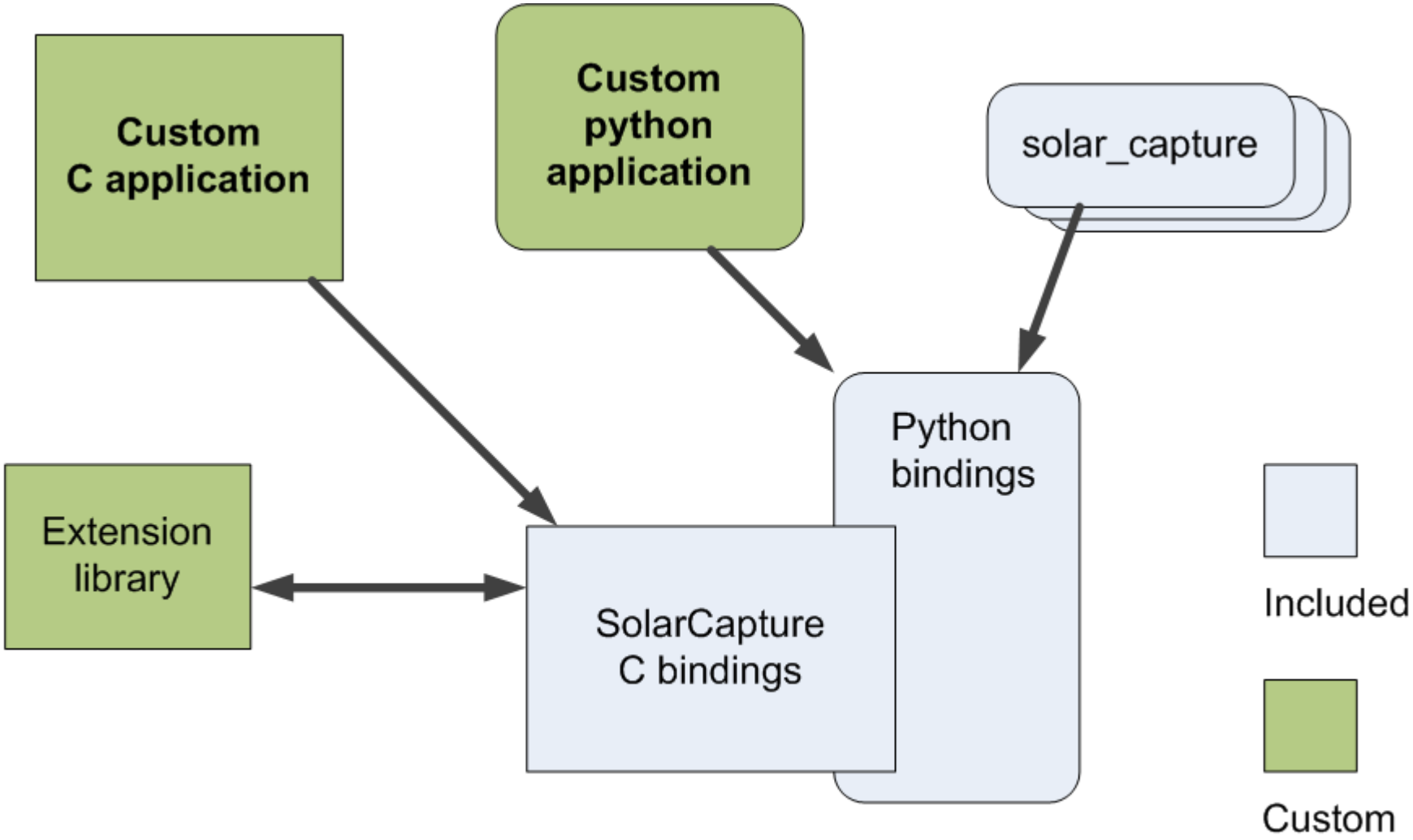
Extension API for customisation



Embed SolarCapture in your own applications



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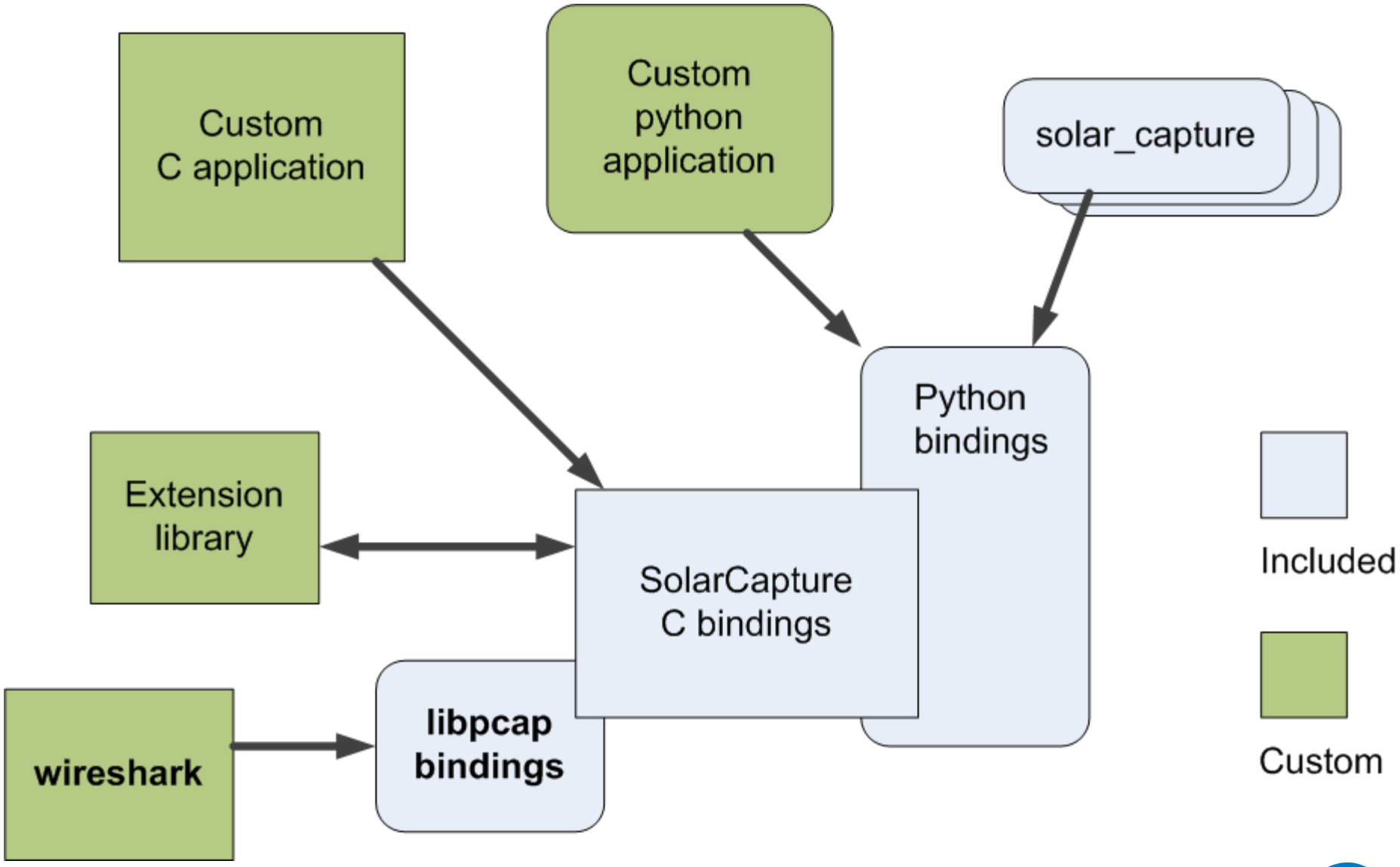
Or accelerate any libpcap application



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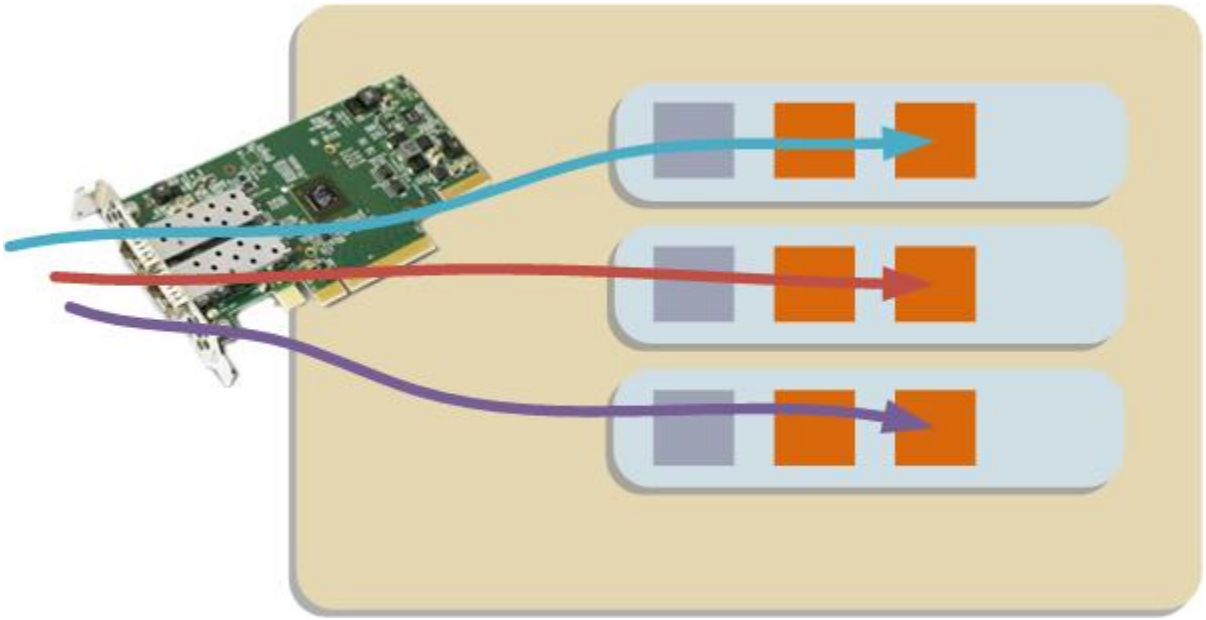
Application clustering

- Spreads load to multiple applications



- Especially useful for scaling
- Supports libpcap bindings

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SolarCapture and SolarCapture Pro on Solarflare Adapters and ApplicationOnload Engine

- SolarCapture
  - No cost license
  - Works on all Onload adapters and Flareon adapters
  - Same feature set as now (plus new APIs)
- SolarCapture Pro
  - The right price performance ratio
  - Works on SFN7000 Series Flareon adapters and the Solarflare ApplicationOnload Engine
  - Enhanced feature set
- Solarcapture Pro on AOE
  - Adds 100% lossless capture at any packet size
  - Large buffer
  - DMA coalescing
  - Other features…

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END

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