METAMAKO

# Metamako Platforms

## Robust, Flexible, Controllable

Dr David Snowdon
CTO

Simplifying networks
Reducing latency in Electronic Trading
Opening up network packet visibility
Increasing flexibility

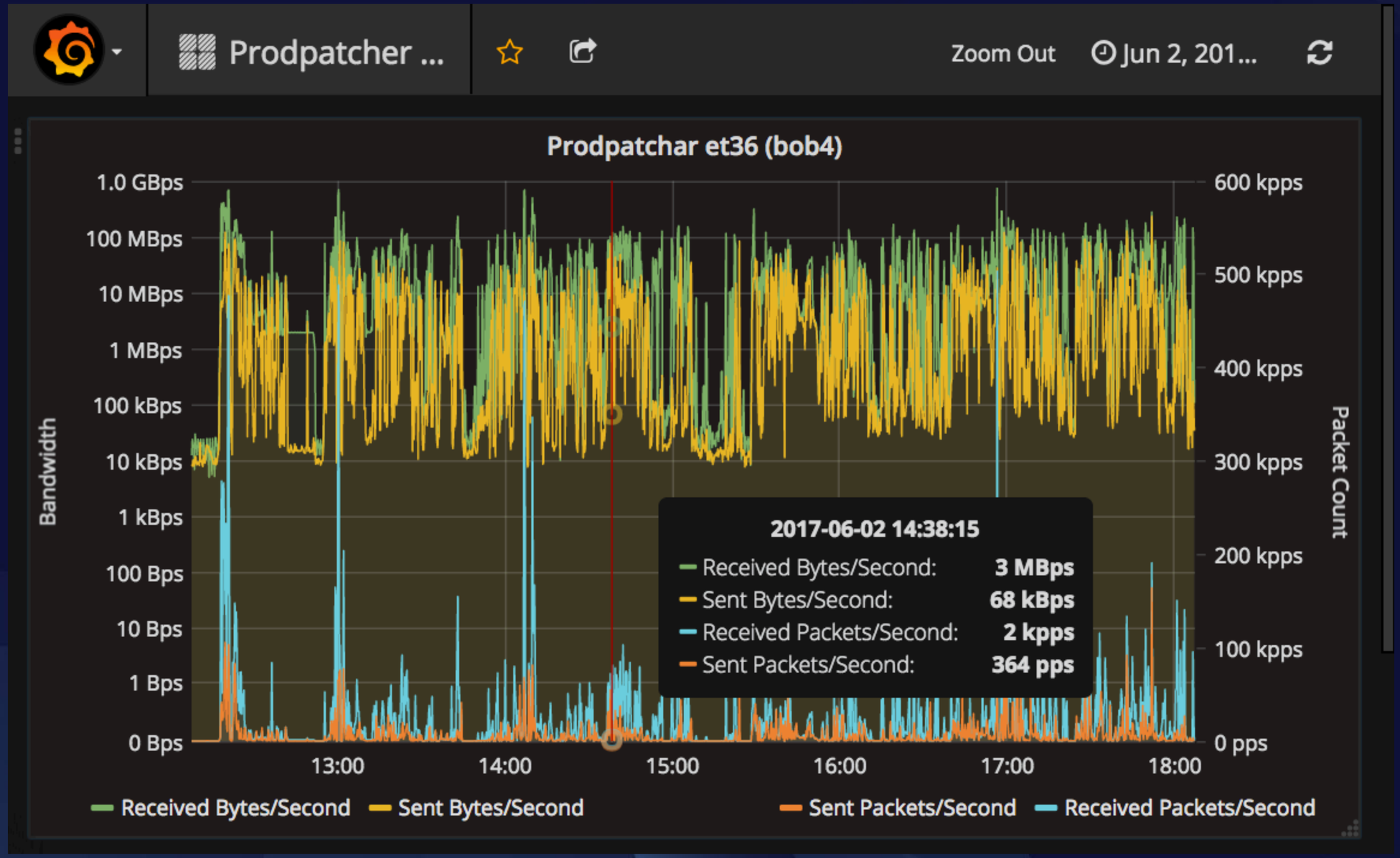
# Updates

# Some **big updates**

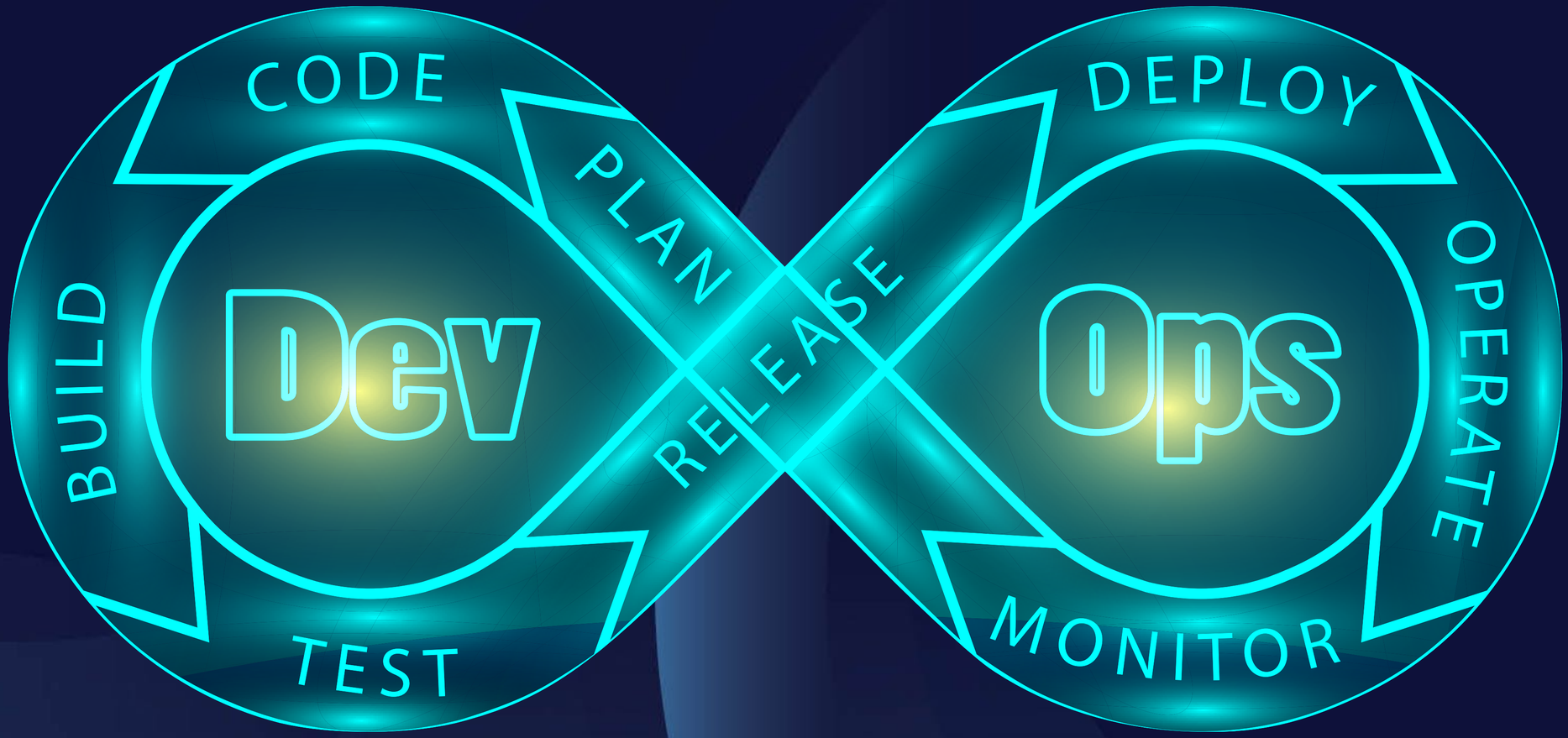
- Major MetaWatch improvements
- 1G
- Filtering
- Rubidium clock
- Time-series data
- JSON-RPC API
- Experimental BGP/PIM

`mos-0.14.0beta1` released today.

# Some big updates



# Some big updates




Devops with a JSON-RPC API

# MetaConnect 96

# MetaConnect 96


- 96 front panel ports
- Between 5 and 6 ns latency (Not STAC Benchmark)
- FPGA-enabled variants, Optional OCXO/Rb/GPS upgrade.
- Runs apps: MetaWatch, MetaMux, MetaFilter… more to come.

# FPGA Platforms

# FPGA Development Platforms


MetaApp 32


MetaMux 48


MetaConnect 96

# FPGA Development Platforms

| K-Series Devices<br>Virtex 7 | C-Series Devices<br>Arria 10 |
|---|---|
|  |  |
| MetaApp 32 | MetaApp 32C |
|  |  |
| MetaMux 48K | MetaMux 48 |
|  |  |
| MetaConnect 96K | MetaConnect 96C |

# FPGA Development Platforms

- Development kit, example designs, tips and tricks:

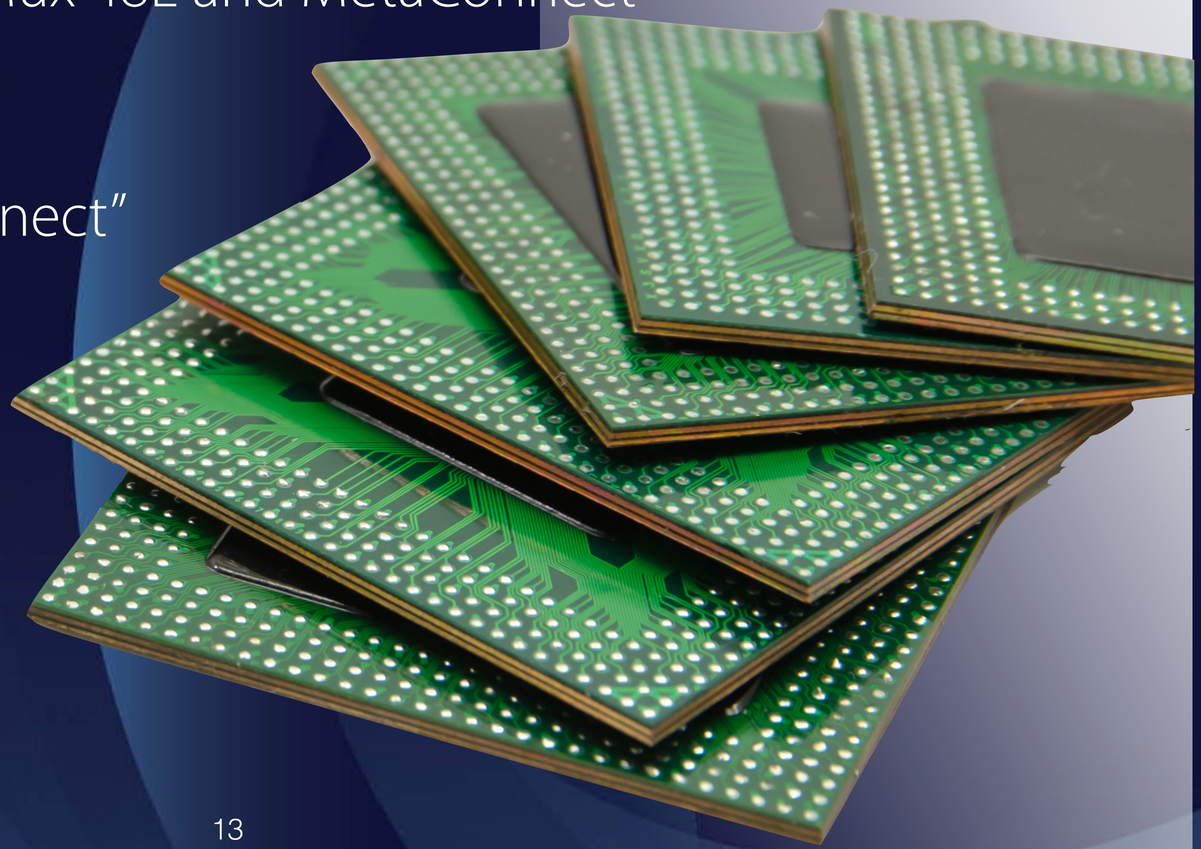
www.metamako.com/support

# Announcing E-Series

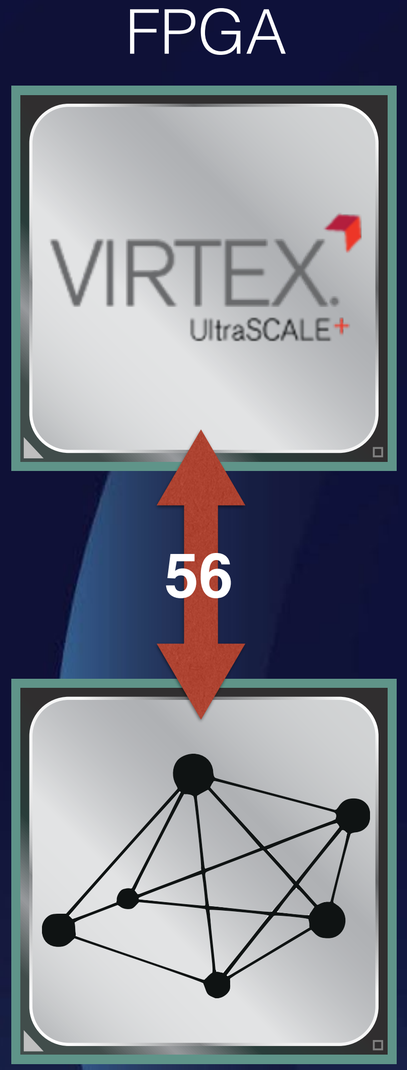
# E-Series

XILINX
ALLIANCE PROGRAM
MEMBER

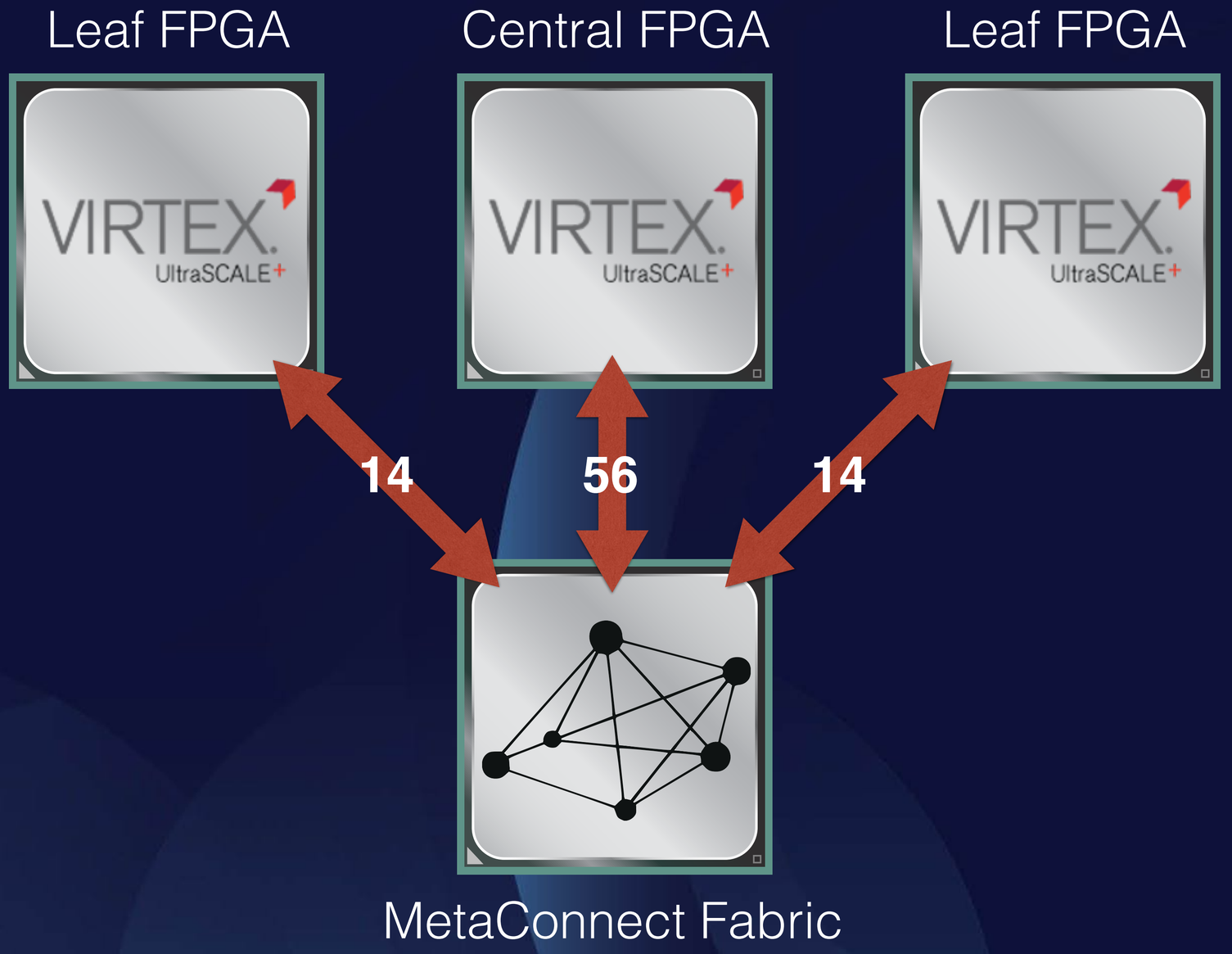
- **Ultrascale** and **Ultrascale+** FPGA
- MetaApp 32E, MetaMux 48E and MetaConnect 96E
- All include "MetaConnect"



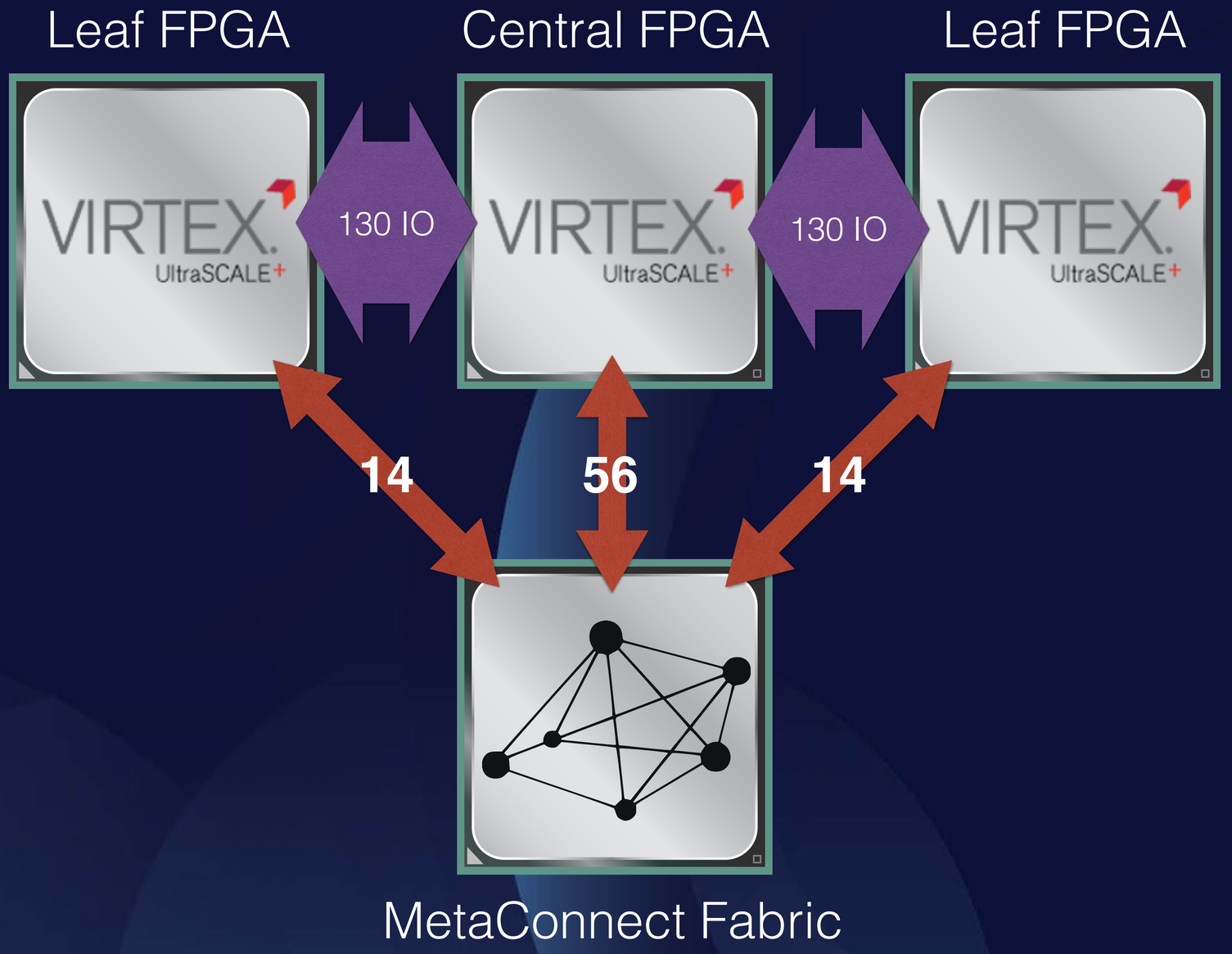
# E-Series



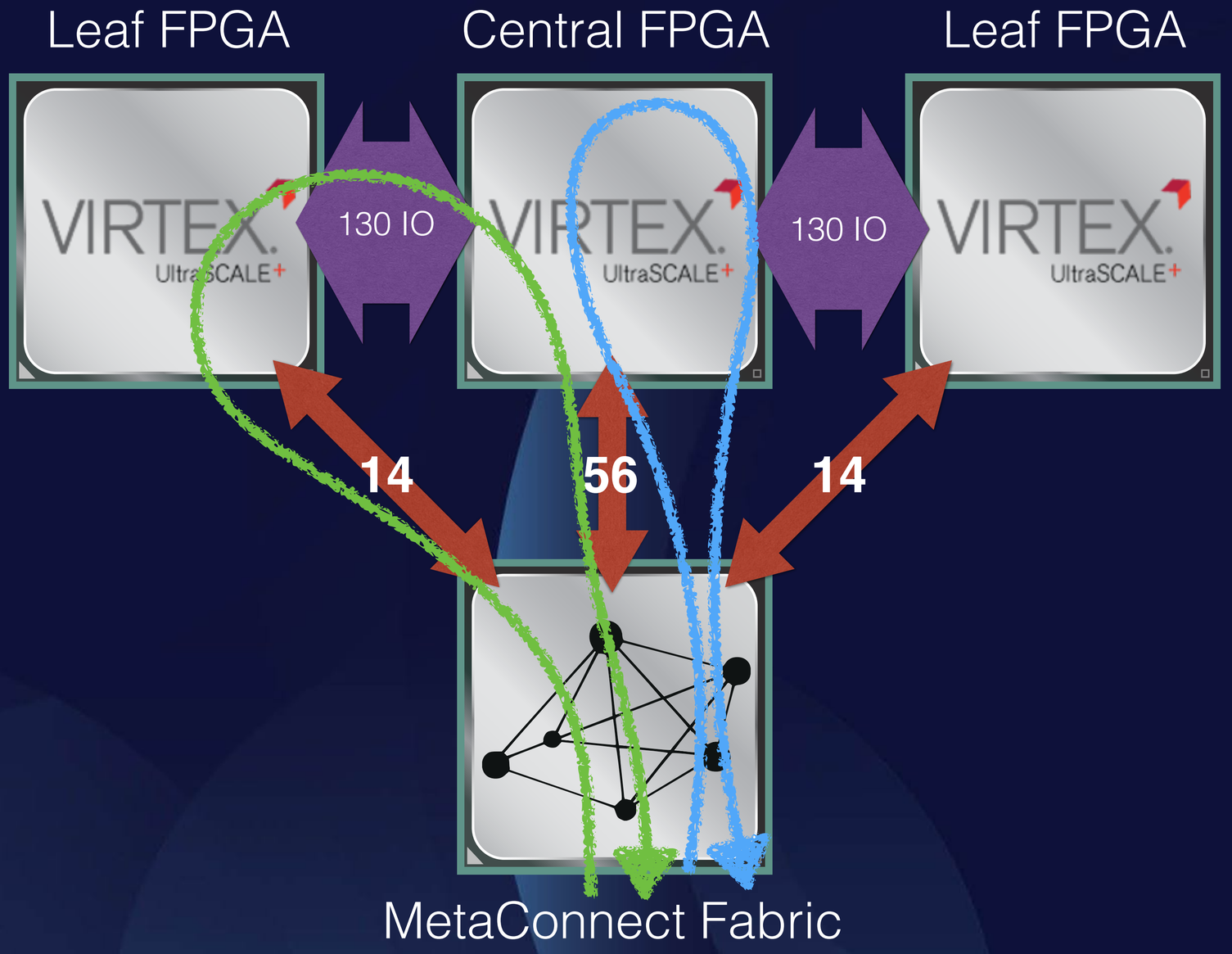
# E-Series


Leaf FPGA
Central FPGA
Leaf FPGA
VIRTEX
UltraSCALE+
VIRTEX
UltraSCALE+
VIRTEX
UltraSCALE+
14
56
14
MetaConnect Fabric

# E-Series


Leaf FPGA
Central FPGA
Leaf FPGA
VIRTEX
UltraSCALE+
130 IO
130 IO
14
56
14
MetaConnect Fabric

# E-Series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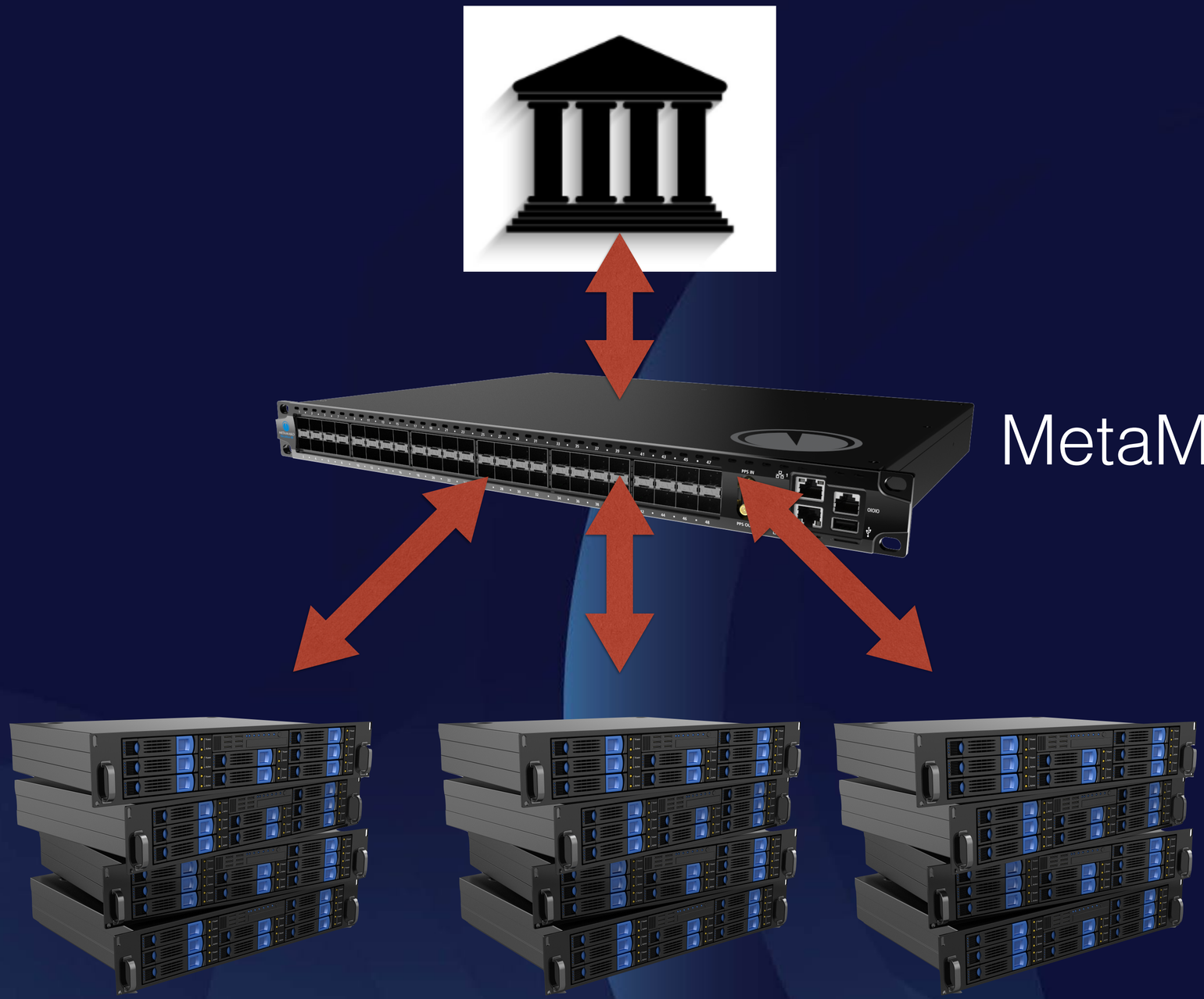
# E-Series



MetaMux 48E

# E-Series

| | K-Series (Virtex 7 415T) | C-Series (Arria 10) | E-Series (3x VU9P Variant) |
|---|---|---|---|
| **Flip Flops or Registers** | 515k | 1,708k | 7,092k |
| **Total On-Chip RAM** | 31.7 Mb | 65Mb | 1,037 Mb |

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For development kits, see:

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