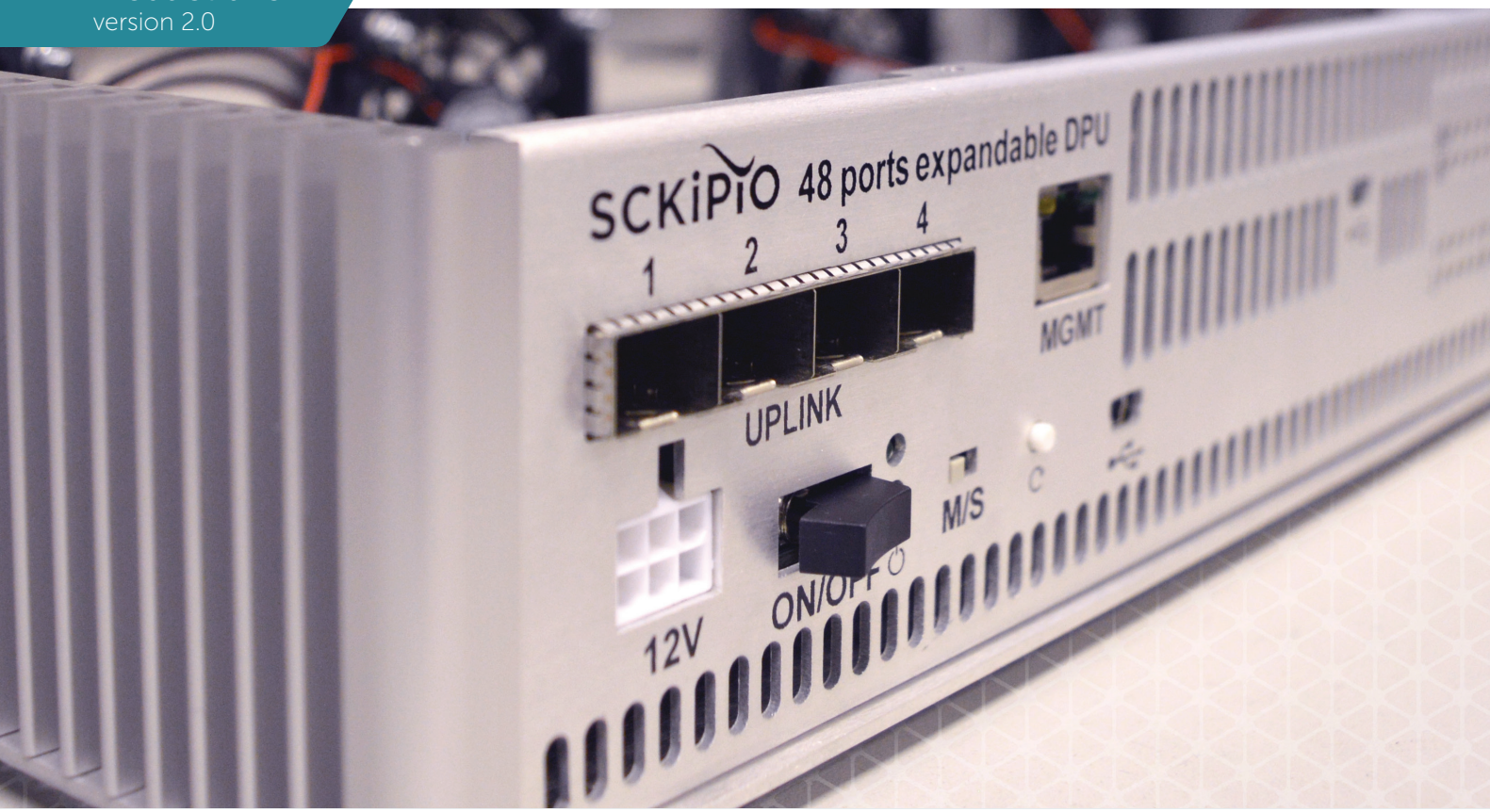
WanStaX G.fast

The complete FTTdp G.fast DPU portfolio

Product brief
version 2.0



civica

Transforming the way you work

Civica's WanStaX G.fast package provides all the software components required by equipment manufacturers to support the functional requirements of a FTTdp G.fast DPU.

WanStaX G.fast has been designed to run on the Sckipio reference boards including the DP3016 and DP2. WanStaX utilises the Microsemi WP3/WP4 NPU to provide the power and flexibility required by G.fast DPUs.

The leader in G.fast

Sckipio's SCK23000 G.fast Distribution Point Unit chipset provides the highest performing G.fast technology on the market. SCK23000 is twice the speed of competitive solutions by supporting full 212a bonding. Unlike competitor solutions that drop to 106a in order to support bonding, only Sckipio runs 212a bonding end-to-end and is powerful enough to make real-world 1Gbps/500Mbps service rates practical at 100 meters or more.

With Sckipio's revolutionary on-chip vectoring, up to 96 subscribers can be vectored to deliver true 1Gbps download speeds. This is 4x more subscribers than the leading competitor.

NETCONF

WanStaX supports a state of the art network management platform with support for NETCONF with the G.fast YANG. The combination of NETCONF and OpenFlow support provides a 21st century "open" solution for OEMs and Operators - complying with the Broadband Forum G.fast management specifications (WT-301, WT-318/355 drafts).

SDN capability

Full support for SDN, data path pipeline fully configurable based on OpenFlow 1.3.4. Facilitated public demonstration by ON Lab at ONF submit of Central Office Re-architected as Data Center (CORD) proof-of-concept (POC).

EFM bonding

Ultilising the WinPath flexibility WanStaX is able to provide bonding on both the DPU and the CPE, giving up to 4Gbps on a bonded pair of G.Fast lines.

Features

- Full service G.fast DPU
- WT-301 support
- Full SDN capability with OpenFlow 1.3.4
- Full NETCONF support with BBF YANG model for G.fast
- Full G.999.1 support between NPU and DFE
- G.998.2 Bonding capability provided by NPU, links spanning DFEs
- Bonding support on DPU and CPE
- Latest Sckipio SDK integration

Applications

- G.fast DPU
- Multi Dwelling Units (MDU)
- Small Cell backhaul
- Single port DPU
- CPE bonding up to 4Gbps

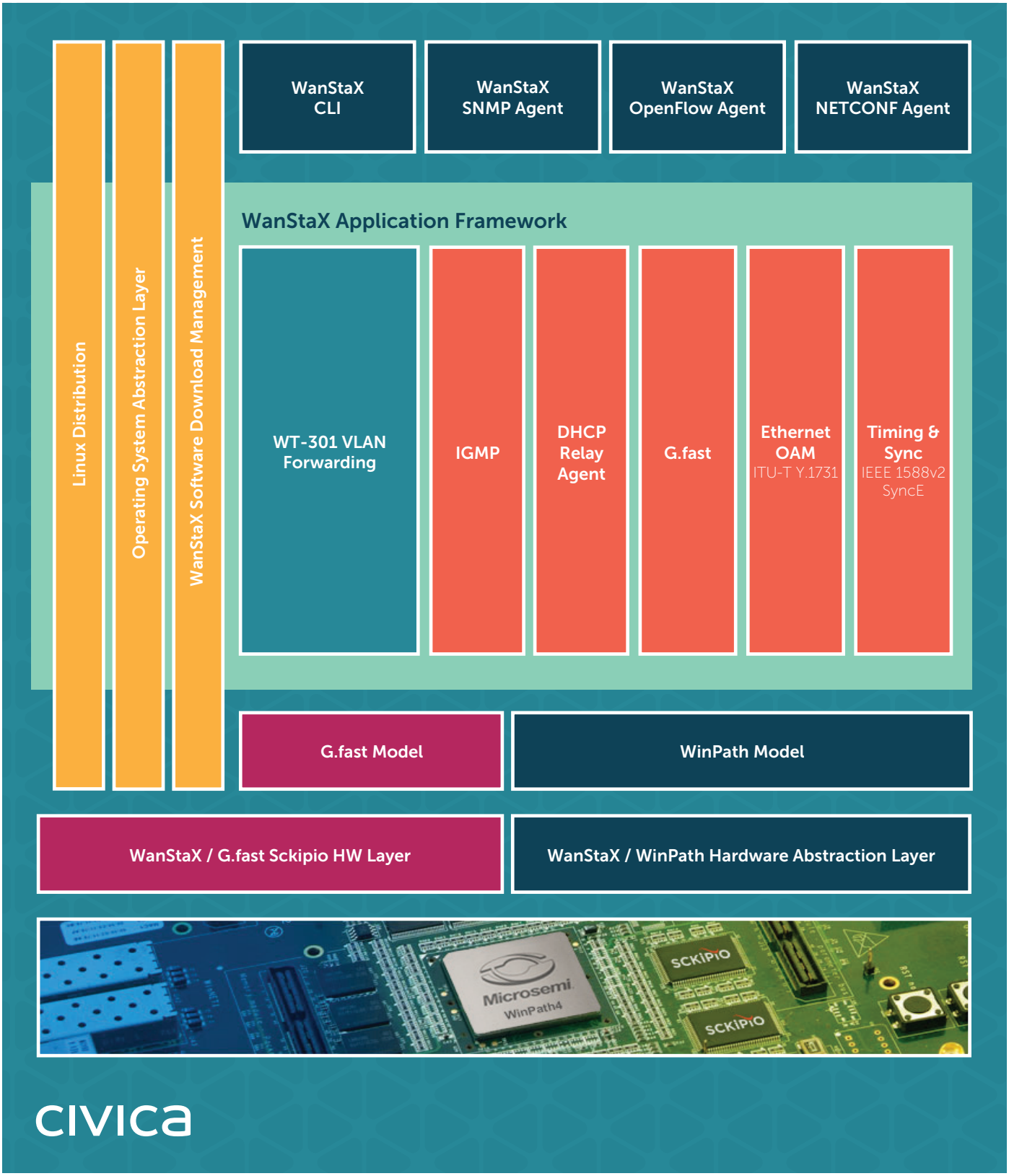
Compatibility

- WanStaX G.fast is software compatible with WP3-SPO, WP3-SL, WP3 and WP4 designs

Benefits

- Full support for WP3 and WP4 including SPO and SuperLite versions
- Built in support for 1G, 2.5G and 10G Ethernet and GPON uplinks
- Built in support for 1G or 2.5G SERDES towards DFEs
- Built in support for single SERDES lane per DFE or daisy chained mode
- 1:1 and N:1 VLAN Support, IGMP snooping, DHCP Relay, Management via NETCONF, OpenFlow, SNMP and CLI
- Fully integrated with Sckipio SDK
- Flexible commercial model
- Additional expert WinPath services
- Board bring-up services

WanStaX G.fast Software Portfolio



Specifications

The principal specifications of the Civica WanStaX G.fast package include:

G.fast	- G.999.1 with FlowControl - NETCONF BBF YANG model - EFM Bonding (spanning DFE)

Ethernet	- Multiple 10G, 2.5G, 1G and Fast Ethernet ports, based on the hardware configuration
	- Full wire speed switching and traffic shaping/policing
	- OAM available on every interface:
	  - Full support for 802.1ag
	  - Eight levels of maintenance domains
	  - Configurable number of Maintenance Associations
	  - Connectivity Check Messages from 3ms upwards
	  - Y.1731 performance monitoring
	  - 802.3ah Link OAM
	- Jumbo frame support
	- OpenFlow enabled
	- E-LMI support
	- Split Horizon Support
	- Multicast support with storm control
	- Advanced statistics support
	- ACL support, L2, L3 and L4

VLAN	- VLAN support for S, C and S+C Bridging - PVID Support - VLAN Translation support - VLAN Filter Assigned Tagged - VLAN Range support. - VLAN and Non-VLAN aware bridging - Per VLAN QoS Support - Advanced statistics support
Quality of Service	- Support for EPL, EVPL and ELAN QoS as specified in MEF 10.2 - 8 priority queues per interface per EVC - Traffic priority per ingress traffic type: PCP, DSCP, TOS, Precedence, Protocol, Address - L4 Port, MPLS EXP, MPLS Label - Remarking of PCP/DSCP/EXP - Drop criteria supported - Traffic policing per ingress priority queue, CIR/EIR MEF Coupling/Non-Coupling. - Color/Blind, RFC2697, RFC2698, MEF compliant - Traffic shaping per priority queue, Strict, CIR/EIR, Mixed, WRR, WFQ, MEF compliant

Synchronisation	- SyncE on all ports:
	  - ITU G.8261
	  - ITU G.8262
	  - ITU G.8264
	- IEEE 1588 V2 on all ports:
	  - OC, BC and TC
	  - IEEE 1588-2008 Default Delay Request Response
	  - IEEE 1588-2008 Default Peer-to-Peer Delay
	  - ITU G.8265.1 (Telecom Profile)

Forwarding	- IEEE 802.1ad Provider Bridging - Support for S, C and S+C Bridging - PVID - IGMP Snooping - DHCP Relay Agent - EAPoL - MAC Learning and forwarding - IVL, SVL learning - MAC pinning - Statistics

Board Support Services	- Board Bring-up and Board Support Packages:
	  - WinPath Reset Configuration
	  - Bootloader, Uboot support
	  - Linux 4.9 LTS integration

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