

## DE-CIX INTERWIRE TECHNICAL ACCESS DESCRIPTION

### I. GENERAL PROVISIONS

#### 1. Overview, scope of application

This document contains the Technical Access Description (TAD) for the DE-CIX INTERWIRE access product. This TAD is part of the DE-CIX INTERWIRE contractual framework.

This TAD shall apply only to the DE-CIX INTERWIRE access product. The DE-CIX INTERWIRE access may however be a prerequisite for other DE-CIX INTERWIRE services. Access to the DE-CIX INTERWIRE infrastructure is realized by a physical port. This document contains only technical specifications and documentation. Please consult the Master SLA for service levels.

#### 2. Amendment

This document may be revised and amended at any time pursuant to the provisions of the DE-CIX INTERWIRE Agreement.

#### 3. Product prerequisites

The DE-CIX INTERWIRE access requires the following DE-CIX INTERWIRE products for its normal operation:

- None.

#### 4. Applicable standards

Members' use of the DE-CIX INTERWIRE network shall at all times conform to the relevant standards as laid out in [STD0001](#) and associated Internet STD documents.

### II. HARDWARE

DE-CIX INTERWIRE currently supports the following hardware configurations.

<u>Type</u>	<u>Bandwidth</u>	<u>Connection</u>
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FastEthernet	100Mbps	100 Base TX
1GE line rate	1 Gbps	1000 Base-LX**
10 GE line rate	10 Gbps	10000 Base-LR/ER*
100 GE line rate	100 Gbps	100000 Base-LR4

\* 10000 Base-ER on request. Additional charges apply. \*\*1000Base-TX on request where available, additional charges may apply.

### III. PHYSICAL LAYER CONFIGURATION

#### 1. Bandwidth

Bandwidth of the access is subject to the respective client order. Generally, and subject to availability in the respective data centre, DE-CIX INTERWIRE offers the following bandwidths:

- 100Mbps
- 1 Gbps
- 10 Gbps
- 100 Gbps

#### 2. Access configuration

The following parameters must be configured for various access bandwidths:

<u>Port bandwidth</u>	<u>Policy</u>	<u>Parameter settings</u>
100Mbps fast Ethernet	<b>Configure</b>	Full Duplex = enabled
1 Gbps Ethernet	<b>Configure explicitly</b>	Bandwidth = 1 Gbps Full Duplex = enabled auto negotiation = disabled
10 or 100 Gbps Ethernet	<b>Auto-sensing</b>	No modification needed.

### 3. Link aggregation

Link aggregation allows the bundling of multiple physical links to one logical link. This is also known as Port Channel, Port Aggregation, Trunking or Etherchannel depending on the vendor's product name (specified by IEEE 802.3ad/LACP).

On the DE-CIX INTERWIRE platform, link aggregation may be used subject to the following configuration settings:

<u>Parameter</u>	<u>Policy</u>	<u>Remarks</u>
1 Gbps port bandwidth	<b>Allow</b>	Max. 4 ports per bundle
10 or 100 Gbps port bandwidth	<b>Allow</b>	Max. 32 ports per bundle
LACP Protocol	<b>Required</b>	Non LACP usage by special request only.
LACP timeout	<b>Short</b>	-

### 4. Layer 2 MTU

The minimum layer 2 MTU must be set high enough to not restrict the MTUs of any service used on the port.

### 5. VLAN tagging

VLAN tagging is supported for service differentiation. The standard dot1q (IEEE 802.1q) is generally supported, the standard QinQ (IEEE 802.1ad) is supported only in some locations and only by request.

VLAN IDs must be coordinated with DE-CIX INTERWIRE. Not all IDs may be available for customer use at all locations.