

No	Cxema	General setup conditions	Notes
1.		Within the MOEX Dataspace colocation facility, the client equipment can be connected as follows: 1. Client server equipment is connected directly to MOEX network equipment (hereinafter, L2 link) 2. Client server equipment is connected to MOEX through Client network equipment (hereinafter, L3 link).	The clients equipment requirements vary between links . This document contains references to link types for each condition.
2.	L2	<p>Image 1. L2 link</p> <p>The diagram illustrates the L2 link setup. A central 'Client Server' is shown with six interfaces: eth1, eth0, eth4, eth5, eth2, and eth3. It is connected to three distinct network segments via L2 links. The 'Production network segment' (top) contains a 'Production Trade system network' and a 'Production network segment' connected by a 'LACP + Trunk' link. The 'UAT network segment' (bottom) contains a 'UAT Trade system network' and a 'UAT network segment' connected by a 'LACP + Trunk' link. The 'Internet-facing segment' (right) contains an 'Internet' connection. Each segment has an associated 'Access-list: Client allocated address' box: 'enabled for PROD access' for the Production segment, 'enabled for UAT access' for the UAT segment, and 'enabled for Internet access (+NAT)' for the Internet-facing segment. A 'LACP + Access' link connects the Client Server to the Internet-facing segment.</p>	
3.	L2/L3	MOEX colocation facility in Dataspace contains 3 isolated network segments:	This architecture was created to ensure infrastructure stability and security
3.1	L2/L3	A. Production network segment	Used to access the production and gaming environments
3.2	L2/L3	B. UAT network segment	used to access UAT
3.3	L2/L3	C. Internet-facing segment	Internet access
4.	L2/L3	The client can connect to one (production) or more network segments, making as many links as needed	
5.	L2/L3	All connections to each network segment are done via 2 physical links to 2 different MOEX network devices.	Two links provide redundant connection. Internet, iLo, IPMI, UAT connections are not redundant.

6.	L2/L3	Redundant links facing client equipment can be connected as follows:	Different capabilities for L2/L3 connections.
6.3	L2	· to different network interfaces of the Client server	The only possible solution for L2 connections.
7.	L2	Two physical interfaces of each Client equipment connection should have LACP enabled.	The interfaces should have trunking enabled (IEEE 802.1q) in redundant mode (LACP, IEEE 802.3ad)
8.	L2/L3	Physical connections parameters:	Different capabilities for L2/L3 connections.
8.2	L2	· 10G port, 10GBase-SR type (MM fibre) or 1G port, 1000Base-TX type (UTP)	
9.	L2/L3	For each client the Technical center provides /24 networks from private range (as per RFC 1918) for each isolated network segment and for specific services within one network segment.	
10.	L2/L3	Specific addresses within allocated address space are enabled by the Technical center and added into ACLs as per the Client requests	
11.	L2/L3	Client connections to specific services of a certain network perimeter are only possible from IP addresses enabled by the Technical center from the range of Client-allocated address space for this service/network segment.	
12.	L2	For L2 connections specific services are available within separate VLANs facing separate network segments.	VLANs should be configured over the pair of links in redundant mode (LACP, IEEE 802.3ad) with IEEE 802.1q trunk for each network segment interface.
12.1	L2	Internet-facing connections are made in a different way: - Internet transit network is available in the access mode in the redundant mode (LACP, IEEE 802.3ad) - Internet transit network (management interfaces) is available in the access mode	Trunking configuration (IEEE 802.1q) and VLANs are not required
13.	L2/L3	FAST feeds are divided to several groups and are available, including TCP Recovery, from different address spaces and VLANs (for L2), separately for Feed A and Feed B.	
14.	L2	FAST feeds subscription is done using IGMP protocol.	
15.	L2/L3	Address space and VLANs list for PROD network segment:	
15.1	L2/L3	IP:10.224.0.0/16 VLAN:224	Transactional network
15.1	L2/L3	IP:10.231.0.0/16 VLAN:231	FAST (Equities) - Feed A
15.2	L2/L3	IP:10.241.0.0/16 VLAN:241	FAST (Equities) - Feed B
15.3	L2/L3	IP:10.232.0.0/16 VLAN:232	FAST (FX) - Feed A
15.4	L2/L3	IP:10.242.0.0/16 VLAN:242	FAST (FX) - Feed B
15.5	L2/L3	IP:10.233.0.0/16 VLAN:233	FAST (Derivatives) - Feed A

15.6	L2/L3	IP:10.243.0.0/16 VLAN:243	FAST (Derivatives) - Feed B
15.7	L2/L3	IP:10.234.0.0/16 VLAN:234	FAST (Full Order Log for Derivatives) - Feed A
15.8	L2/L3	IP:10.244.0.0/16 VLAN:244	FAST (Full Order Log for Derivatives) - Feed B
16.	L2/L3	Address space and VLANs list for UAT network segment:	
16.1	L2/L3	IP:10.223.0.0/16 VLAN:223	UAT system transactional network
16.2	L2/L3	IP:10.221.0.0/16 VLAN:221	FAST UAT - Feed A
16.3	L2/L3	IP:10.222.0.0/16 VLAN:222	FAST UAT - Feed B
17.	L2/L3	Address space and VLANs list for Internet connections:	
17.1	L2/L3	IP:10.218.0.0/16 VLAN:218	Internet transit network
17.2	L2/L3	IP:10.219.0.0/16 VLAN:219	Internet transit network (mgmt interfaces only)
18.	L2	All address spaces include gateways 10.x.0.1 which should be used for building routes to the VLAN services. The ping utility is used to check the connectivity of gateways 10.x.0.1.	
18.1	L2	Gateways 10.218.0.1 and 10.219.0.1 can be used as default gateways in the Internet connection segment	
19.	L2/L3	In the Internet connection segment, all incoming and outgoing connections are restricted by default, except: - connection to public DNS (8.8.8.8, 8.8.4.4) and internal DNS (85.118.176.17, 85.118.176.19), - outgoing ping from Internet connection network (10.218.0.0/16).	Further connections are allowed at the request.
19.1	L2/L3	Addresses 8.8.8.8, 8.8.4.4 (or internal 85.118.176.17, 85.118.176.19) can be used as DNS servers to configure interfaces in the Internet transit network segment.	Other DNS servers can be enabled at the request.