

GENERAL

1. What does the *ASEAN Exchanges* represent?
 - *ASEAN Exchanges* signifies the collaboration of the seven ASEAN stock exchanges with the purpose to promote the growth of ASEAN capital market by bringing more ASEAN investment opportunities to more people.
 - We aim to create ASEAN as an asset class thereby bringing greater liquidity into the ASEAN capital market.
 - *ASEAN Exchanges* is also the first ASEAN sanctioned private sector, capital market, initiative to deliver on the ASEAN Economic Community (AEC) blueprint, which is guided by the ASEAN 2020 Vision which calls for single market and production base, with freer flow of capital within ASEAN.

2. Who are the seven ASEAN stock exchanges?
 - The seven ASEAN stock exchanges are Bursa Malaysia (Bursa), Hanoi Stock Exchange (HSE), Hochiminh Stock Exchange (HOSE), Indonesia Stock Exchange (IDX), The Philippines Stock Exchange (PSE), Singapore Exchange (SGX), The Stock Exchange of Thailand (SET).

3. Who are the key drivers of this collaboration?
 - The key drivers of this collaboration are the CEOs of the seven stock ASEAN stock exchanges:
 - Dato' Tajuddin Atan of Bursa Malaysia Berhad,
 - Dr. Tran Dac Sinh of Ho Chi Minh Stock Exchange,
 - Mr. Tran Van Dzung of Hanoi Stock Exchange,
 - Mr. Ito Warsito of Indonesia Stock Exchange,
 - Mr. Hans B. Sicat of Philippine Stock Exchange,
 - Mr. Magnus Bocker of Singapore Exchange, and
 - Mr. Charamporn Jotikasthira of the Stock Exchange of Thailand.

4. What do you mean by creating ASEAN as an asset class?
 - ASEAN when brought together offers tremendous opportunities for investors than if the countries are to be viewed individually. When combined, ASEAN, a market of almost 538 million people, has a collective GDP of approximately USD 1.8 trillion, and according to the OECD Development Centre's 2010 Southeast Asian Economic Outlook, GDP growth will average 6% annually over the 2011 -2015 period.
 - Creating an ASEAN asset class means investors from around the world will have access to a combined market capitalisation of USD1.8 trillion representing more than 3,000 companies. Some of these companies are the largest and most dynamic in the world, including leaders in the banking and finance, telecommunications, commodities and automotive industries.

ASEAN Link : Technical FAQ

TECHNICAL

1. What is ASEAN Link?

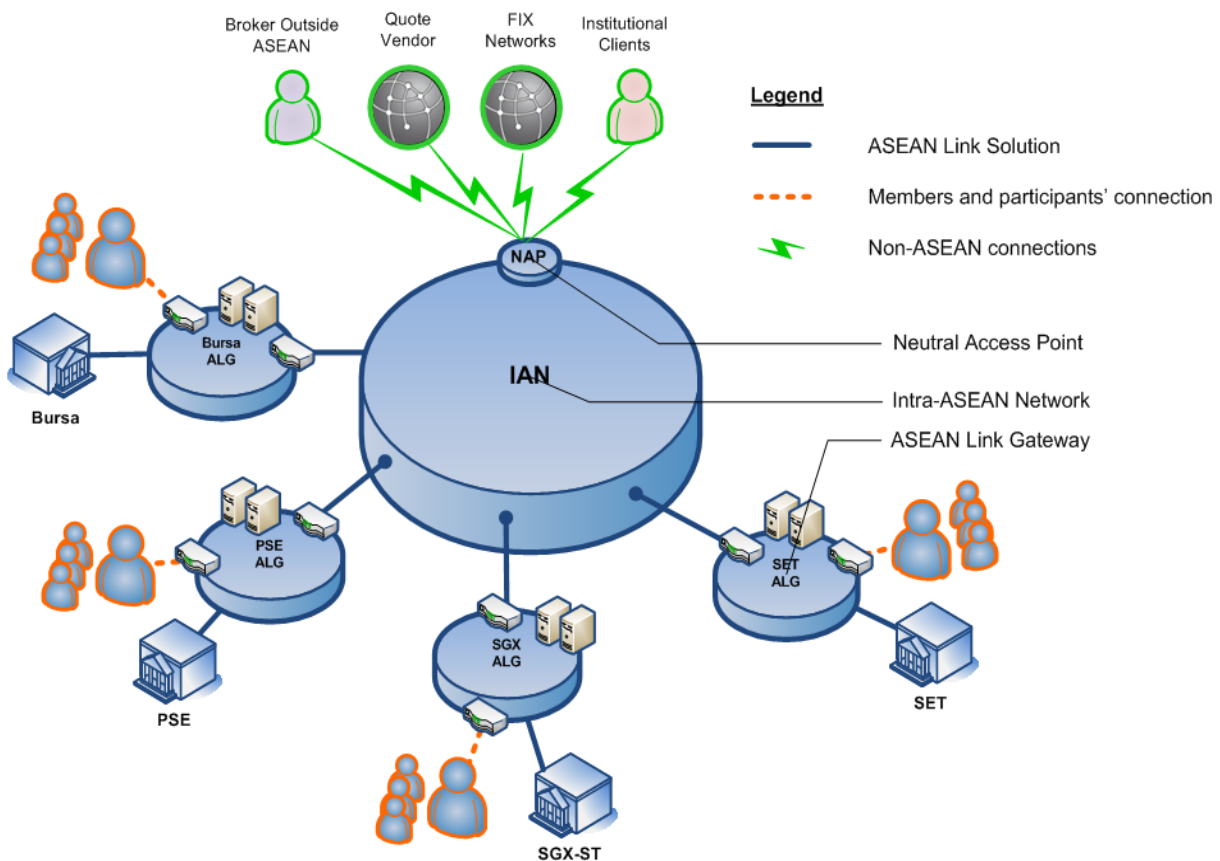
ASEAN Link is a technology infrastructure provided by the participating ASEAN Exchanges. This allows investors from one market to trade securities listed in another market.

2. What is the roll out plan of ASEAN Link?

On 17 Nov 2011, the ASEAN CEOs announced that ASEAN Link will be rolled out progressively. The first stage will see the launch of ASEAN Link between SGX and Bursa in June 2012, followed by SET in August 2012.

The participation of the other ASEAN Exchanges, namely, HSE, HOSE, IDX and PSE will be announced at a future date.

3. What is the architecture of the ASEAN Link?



4. What is ALG?

ALG (ASEAN Link Gateway) is the local gateway for members to connect to ASEAN Trading Link to route orders, receive market data and manage pre-trade-risk.

ASEAN Link : Technical FAQ

v 1.0

5. What are the features of ASEAN Link?

The following are the key features of the ASEAN Link:

Order Route	<ul style="list-style-type: none"> – Local gateway (ALG) to route orders from local members to participating ASEAN Exchanges – Neutral Access Point (NAP) for Non-ASEAN members to route orders to participating ASEAN Exchanges – Order Route will be in FIX format
Market Data	<ul style="list-style-type: none"> – Aggregated market data of the participating exchanges will be available at the local gateway (ALG) for local members and quote vendors – Aggregated market data of the participating exchanges will be available at the NAP for Quote Vendors and non-ASEAN members – Market Data will be in FIX/FAST format
Pre-trade risk Management	<ul style="list-style-type: none"> – Valdi Selector Manager will be available at the local gateway (ALG) for members to set the limits – Members may develop interface to upload risk parameters to the local gateway (ALG) – Valdi Selector Manager allows limits to be changed intraday – Uploading of file will only be done once at the beginning of the day – SFTP facility available at the local exchange for members to upload the risk parameters to ALG (for Bursa, we will use eFIX)
Post-trade risk Management	<ul style="list-style-type: none"> – End of Day (EOD) trade file will be available via SFTP (for Bursa, it will be via eFIX)
OMS	<ul style="list-style-type: none"> – Exchanges can provide up to two (2) Valdi Trader licences per member (terms and conditions will be in the Participation Agreement) up to 18 months from Stage 1 Launch. – Members have the option to develop their own FIX compliant OMS.
Drop Copy	<ul style="list-style-type: none"> – Real time drop copy is available for members (OBs and SBs) to develop interface with BOS (back-office system) for contract and settlement, share custody such as corporate action, transfer, etc. – EOD trade file will be available via Exchange SFTP server (for Bursa, it will be via eFIX)

ASEAN Link : Technical FAQ

v 1.0

6. What market data will be available via ASEAN Link?
ASEAN Exchanges market data will be available via ASEAN Link based on the roll out plan stated above.

7. What is technically required to access ASEAN Link?

As an **Originating Broker (OB)**:

Hardware/Application	<ul style="list-style-type: none"> – Workstation for Valdi Trader for SGT OMS – Workstation for Valdi Selector Manager for pre-trade risk management – Hardware for FIX Compliant OMS if choose to use own OMS
Network and connectivity	<ul style="list-style-type: none"> – Local network connection to Bursa Malaysia (current Bursa WAN) – 512 KB for 2 Valdi Trader screens if using SGT OMS
Development/Application	<ul style="list-style-type: none"> – Enhance BOS where necessary to support range of post-trade functions e.g. processing EOD trade export file, issuance of contracts, client settlement, and custodian services such as share holding register/accounting, corporate actions, etc. – Acquire/develop ASEAN FIX compliant OMS – Develop risk parameters file (mandatory when Originating Broker who wants to upload risk parameters to O-ALG from its internal system) – Develop feed adapter to receive real time Drop Copy from O-ALG (mandatory when broker wants to receive real-time Drop Copy of broker's own orders and trades from O-ALG)

As a **Sponsoring Broker (SB)**:

Hardware	<ul style="list-style-type: none"> – Workstation for Valdi Selector Manager Screen (for pre-trade risk management)
Network and connectivity	<ul style="list-style-type: none"> – Local network connection to Bursa Malaysia (current Bursa WAN) – Minimum of 64kbps of bandwidth for SB using real time drop copy
Development/Application	<ul style="list-style-type: none"> – Enhance BOS to support range of post-trade functions such as processing EOD trade export file, issuance of contracts, client settlement, and custodian services such as share holding, corporate action, etc. – Develop risk parameters file (mandatory when Sponsoring Broker wants to upload risk parameters file to E-ALG from its internal system) – Develop feed adapter to receive real-time Drop Copy from E-ALG as required (mandatory when broker wants to receive real-time Drop

ASEAN Link : Technical FAQ

v 1.0

	<p>Copy of Originating Broker's orders and trades from E-ALG)</p> <ul style="list-style-type: none"> - SFTP facility with local Exchange (for Bursa, eFIX will be used)
Access	<ul style="list-style-type: none"> - Obtain Access ID from Executing Exchange for every new relationship (For Bursa, it is the subscriber ID for connection to EE and member code to allow OB to trade) - Executing Exchange access fee applicable (Refer to Market Access briefing slides) - You may have multiple OBs using the same subscriber ID as long as it does not exceed the prescribed capacity

8. What is the hardware specifications for Valdi Selector Manager and Valdi Trader

Valdi Selector Manager (Real time risk manager at the ALG)	<p>Intel CPU: at least dual core Memory: at least 2 GB Disk: at least 50 GB OS: Windows XP 32 bits or Windows 7 64 bits</p>
Valdi Trader (Exchange provided OMS)	<p>Intel CPU: at least dual core Memory: at least 2 GB Disk: at least 50 GB OS: Windows XP 32 bits or Windows 7 64 bits</p>

9. What is ASEAN FIX certified OMS? What is the process of certification?

OMS that has gone through the ASEAN FIX certification process with Exchange designated vendor (i.e. SunGard).

10. What is the process for obtaining Access ID from Bursa Malaysia? How long will it take?

The Sponsoring Broker will first have to obtain a Virtual Branch Code from Participant Affairs. Once this has been given, the Sponsoring Broker will then request a subscriber ID from Bursa Malaysia Technology and Systems. This process takes approximately 2 weeks.

11. Who will configure the pre-trade risk filter on the ALG?

Broker will be responsible for configuring and management of all pre-trade risk filters.

12. What is drop copy?

Drop copy is a means for Sponsoring Brokers to obtain real-time visibility of transactions from Originating Brokers on the executing end of the order flow.

13. When will the Certification Environment be ready for ASEAN FIX certification?

Mid-March 2012.

14. Will Exchange be providing an OMS solution?

Yes. While OBs are acquiring their own OMS solution, the Exchange will provide an interim solution for the first 18 months from date of launch.

15. Who will perform the installation for Exchange-provided OMS screen?

The Originating Broker will perform the installation. An installation guide will be provided.

ASEAN Link : Technical FAQ

v 1.0

-
16. What is the on-boarding procedure for ASEAN Link?
The on-boarding procedure will be available on Bursa and ASEAN Exchanges web site by end Dec 2011.
17. What type of training will Bursa be providing for the ASEAN Link?
Bursa will be providing training on the Risk management (i.e. Valdi Selector Manager) and OMS (Valdi Trader) functions.
18. Who will provide the training? When and Where?
Bursa will be providing the training. The training sessions are tentatively scheduled for Mar 2012 at Bursa Malaysia.
19. How many training sessions will be provided?
One training session prior to Industry Wide Testing on a first come first serve basis will be provided for participating brokers.
20. How much will additional training session cost?
SunGard charges USD1,500 per day for up to 20 persons per session. Typically, a session will last 2-3 days.
21. How many personnel can the Sponsoring Broker send for the training session?
Up to a maximum of two (2) persons.
22. When is the last date to sign up for the initial on-boarding before going "Live"?
End-Jan 2012.
23. What is the impact to Post Trade in ASEAN Trading Link?
No impact. Existing inter-broker Clearing & Settlement arrangements apply.
24. Who is responsible for orders executed into Bursa Malaysia?
Sponsoring Broker.
25. When will ASEAN FIX specifications for order routing and market data be made available?
It was sent out to the participating brokers on 8 December and will be made available on Bursa's Website on 13 Dec 2011. Subsequent updates will also be informed via the same manner.
26. Will there be any agreement between Sponsoring/Originating Broker with the Exchange for participating in ASEAN Link?
Yes. There will be either a Participating Agreement or Registration Form.
27. What are the terms of use for ASEAN Link?
This will be reflected in the Participating Agreement or Registration Form.
28. When will the Participating Agreement or Registration Form be available?
The Participation Agreement or Registration Form will be available via email and Bursa Malaysia website with following URL by 31 Dec 2011.

http://www.bursamalaysia.com/website/bm/asean_exchanges.html

ASEAN Link : Technical FAQ

v 1.0

-
29. Can Originating Brokers in Malaysia trade shares listed on Bursa Malaysia using the ASEAN Link?
No.
30. What are the options available to access the ASEAN Link?
a) ASEAN Link Gateway (for ASEAN members)
b) Neutral Access Point (for non-ASEAN members)
31. Is there any internet based trading module for this ASEAN Link?
The ASEAN Link solution does not provide an Internet-based trading module. However, Members can connect their internet trading system to the ASEAN Link ALG using ASEAN Fix to provide multi-market access.
32. How long will the trading hours for this ASEAN Trading Link be?
The current trading hours of the respective Exchanges' are applicable.
33. Can the Originating Broker or Sponsoring Broker use the existing Certified Access Point (CAP) to access ASEAN Trading Link?
No. Access to the ASEAN Link is via the ALG or NAP. The existing CAP is only for the domestic market.
34. What type of market data feed will be available?
Live feed
35. Who will provide network support for Originating Broker who participates in ASEAN Link?
Bursa will provide the network support from the Originating Broker's premises to the ALG.
36. How would a Sponsoring Broker's client access the ASEAN Trading Link if it resides outside Malaysia?
Through the Neutral Access Point (NAP).
37. Who do I contact if I require further clarification?
Please contact Mr Leo Ong Chin Liang at ongchinliang@bursamalaysia.com or at 012-3128269. He will thereafter direct the specific questions to the respective teams.

For further updates, please visit www.bursamalaysia.com and click onto ASEAN Exchanges link.