

Iress BMR

Technical guide on routing orders to an alternative exchange in the event of a primary exchange system outage

January 2022



Introduction

In the event of a primary exchange outage, the IOS+ will identify the destination to be offline and result in no longer having the ability to send new or existing orders in the offline destination.

This is the fundamental behaviour of the IOS+ trading system. The destination is linked to a backend application on the server which connects to the exchange. The Trading Interface is the application that allows connectivity and processing of messages between the IOS+ and exchange.

The purpose of this document is to give a guide to a system administrator to configure the Iress BMR to route new orders to alternative exchanges in the event of a system outage on the exchange side. Please note that there are a number of scenarios, events that can occur during a system outage and this document doesn't cover any service interruptions to ASX, just a system outage/connectivity to the primary exchange is unavailable/offline.

Iress BMR

The Iress BMR is configurable in many ways for various clients to suit their business, best execution policy and order routing requirements. The Iress Best Market Router (Iress BMR) is an application that will accept orders and route those orders, in part or in full, to the appropriate market based on market data, market availability, market applicability, and client-configured preferences.

Orders can be sent to the Iress BMR via the Iress workstation (using IOS+) or via external systems and other integrated systems. For orders received electronically, clients can set up a new default destination of "BESTMKT". On the IRESS desktop, users can similarly configure a default destination of "BESTMKT" for manually entered orders.

Clients can retain the ability to send orders directly to markets. Fills executed via the Iress BMR will include a market reference tag denoting where the order was filled. Iress provides a comprehensive audit trail for BMR executions, including client configuration parameters and market conditions for every update.

The Iress BMR rules are designed to enforce trade-through protection as required by market regulations. The Iress BMR rules are not intended to guarantee "best price" execution based on total trading costs.

Please note, the system behaviour of the Iress BMR is designed not to pull out existing client orders from exchanges and automatically reroute them to alternative exchanges. Configuration changes to the application will take immediate effect on new client orders received and newly processed into the exchange.

Guide to configuring the Iress BMR

The Iress BMR is configurable in many ways for various clients to suit their business and order routing requirements. The following sections provides a guide in how the system can be configured to achieve routing newly created orders to alternative exchanges;

The examples below are based on IOS+ destinations. ASX and CXA are the destinations used to represent the Australian Stock Exchange and CBOE Australia (a.k.a Chi-X Australia).

Each client's BESTMKT exchange priority may be set up differently based on their desired setup requirements. Exchange priority numbered from 1 represents the priority of the order to be routed to the exchange. 1 (one) being the highest priority.

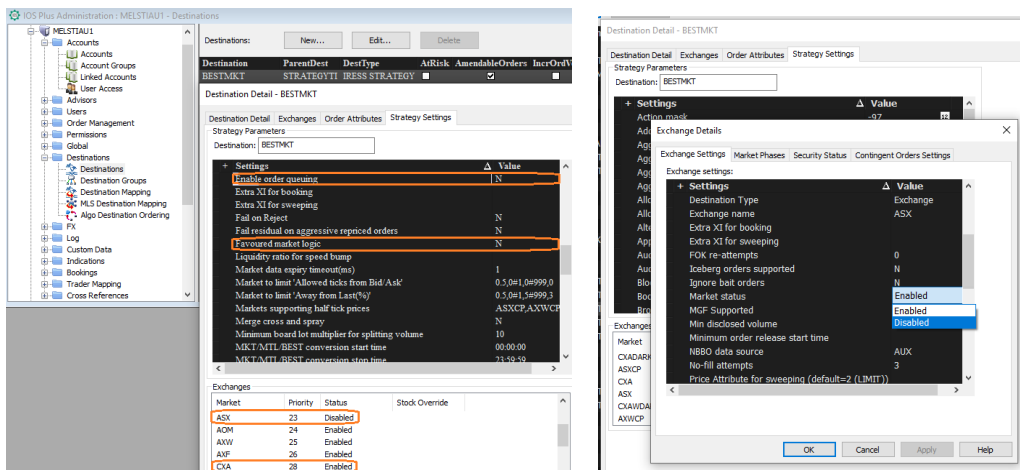
Client orders that are sitting in the primary exchange will not automatically re-routed to alternative exchanges in the Iress BMR. This involves manual configuration of the Iress BMR to route new orders to the alternative exchange.

In the event of the ASX going Offline and CXA remains Online

You can configure the Iress BMR to disable the ASX exchange under the available exchanges in the BESTMKT. Once you make these changes, the BMR will not reroute existing orders in the IOS+ order pad, it is highly recommended users should not amend orders which as a result, the BMR will attempt to pull the order out of ASX, which the amend will fail due to the ASX destination being offline.

Steps:

1. In the IOS+ Administration command, under Destinations, find and edit the BESTMKT destination.
2. Navigate to the Strategy Settings and ensure the **Enable order queuing** and **Favoured market logic** settings are set to "N"
3. Under the Exchanges section, change the ASX status to **Disabled** and ensure CXA is **Enabled**.
4. To do that, double-click on the ASX Exchange and under **Market Status** drop down, select **Disabled**



There is another method to change the Default Main Board Bookings Markets setting, but Iress Product recommends disabling the exchange which is a simpler approach. This will result in all new ASX destined orders to be routed to CXA (if the priority of CXA is next in line to ASX- based off the priority listing)

The example below shows the order being sent to BESTMKT and it has bypassed ASX and sent to the CXA destination for execution.

IOSName	AccCode	SecCode	Dest	B/S	PrcInstr	OrdState	LastAct	ActStat	OrdVol	OrdPrc	OrdVal	RemVol	Re
MELSTIAU1	AUTOTEST1	CVC	BESTMKT	B	Limit	ACTIVE	CREATE	OK	1T	100.00	1T	1T	
MELSTIAU1	AUTOTEST1	CVC	CXA	B	Limit	ACTIVE	CREATE	OK	1T	100.00	1T	1T	

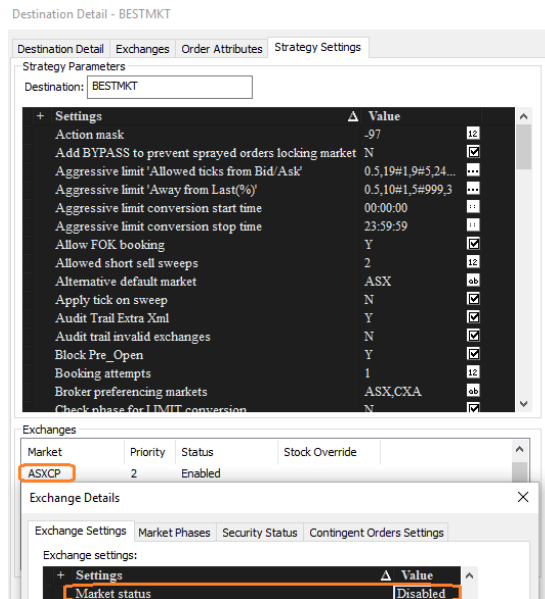
Dest	B/S	PrcInst	OrdState	LastAct	ActStat	OrdVol	OrdPrc	EventDetails
BESTMKT	B	Limit	ACTIVE	CREATE	OK	1,000	100.00	Amend
BESTMKT	B	Limit	ACTIVE		PENDING	1,000	100.00	UPDATED
BESTMKT	B	Limit	ACTIVE		PENDING	1,000	100.00	UPDATED
BESTMKT	B	Limit	ACTIVE		PENDING	1,000	100.00	Amend [OrderMatchID, "SplitAwayVol", "TrailerCodes"]
CXA	B	Limit	ACTIVE	CREATE	OK	1,000	100.00	Amend [OrderMatchID, "SplitAwayVol", "TrailerCodes"]
BESTMKT	B	Limit	ACTIVE		PENDING	1,000	100.00	(ASXCP,T:MktSpr(100.0-0.0),VS:0x0)
BESTMKT	B	Limit	ACTIVE		PENDING	1,000	100.00	Sent:CXA(1000); ASXCP,CXA('OPEN,>@100.00);Book(Def);NS
BESTMKT	B	Limit	ACTIVE		PENDING	1,000	100.00	Mkt:'ASXoCP,CXActs',CXA(Def),SWAY,UnprotMkt
BESTMKT	B	Limit	ACTIVE		PENDING	1,000	100.00	Amend
BESTMKT	B	Limit	ACTIVE		PENDING	1,000	100.00	New Child Order(5117723): 1,000@100
CXA	B	Limit	ACTIVE	CREATE	PENDING	1,000	100.00	Create
BESTMKT	B	Limit	ACTIVE		PENDING	1,000	100.00	Amend
BESTMKT	B	Limit	ACTIVE	CREATE	PENDING	1,000	100.00	Create - User warnings: No last price could be obtained.

In the event of ASX Centre Point becoming unavailable and avoid sending orders to ASXCP?

If in the event of an ASX Centre Point venue becoming unavailable or offline, the ASXCP destination will indicate the status to be Offline. This will require manual intervention with the Iress BMR to configure to avoid new orders to be sent to ASXCP. Iress recommends you to configure the Iress BMR and disable the ASXCP exchange under the BESTMKT destination.

Steps:

1. In the IOS+ Administration command, under Destinations, find and edit the BESTMKT destination.
2. Navigate to the Strategy Settings and under the Exchanges section, change the ASXCP status to **Disabled**.



This will result in new orders not to be routed to ASX Centre Point.

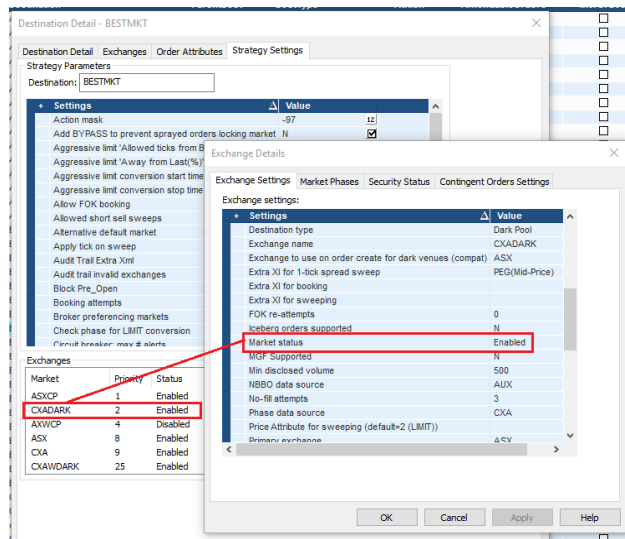
How to route new orders to CXA Midpoint instead?

If ASX Centre Point is unavailable, system administrators have the ability to configure the Iress BMR to route new orders to Chi-X Midpoint (if they have this configured in their IOS+ system).

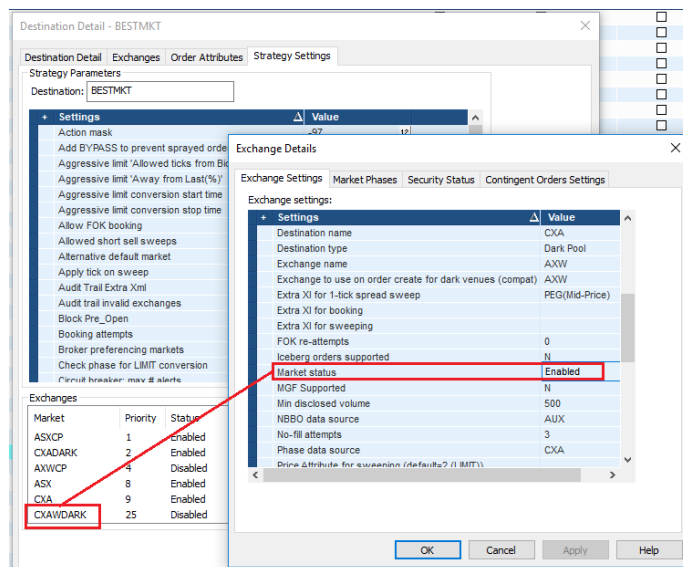
Market Participants should disable both ASXCP and AXWCP markets in their BMR settings under the IOS+ Administration. Clients are recommended to bypass the ASXCP venue rather than have any orders fail.

The Iress BMR will continue to trade on the Chi-X Market Mid-Point at the NBBO if this is already setup on your BMR. Clients are advised there are further configuration changes required for this if not set up.

To enable Chi-X Mid-Point on, under the BESTMKT Strategy Settings, enable the CXADARK market, by selecting the Enabled setting under Market Status.



Clients are also required to amend the CXAWDARK exchange via Strategy Settings as below;



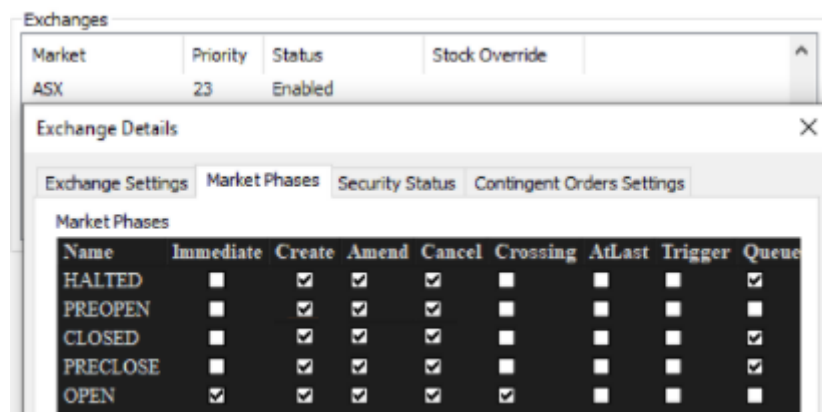
BESTMKT Queuing configuration changes to alternative exchange

The Iress BMR allows for queuing capabilities of orders that reference the market phases. Market phases in the IOS+ system are categorised under (Pre-Open, Open, Pre-Close, Closed and Halted).

Client's can configure the BMR to queue under various market phases as they have the abilities to change these which will take immediate effect. All new orders will then adopt the new changes.

Under the BESTMKT destination, under each exchange, there are Market Phases which can be configured to trigger certain actions the BMR performs.

For example,



In order to set queuing in the event of primary change is offline/unavailable. Clients can configure their Iress BMR to perform the various actions such as Create, Amend, Cancel, Cross, etc.

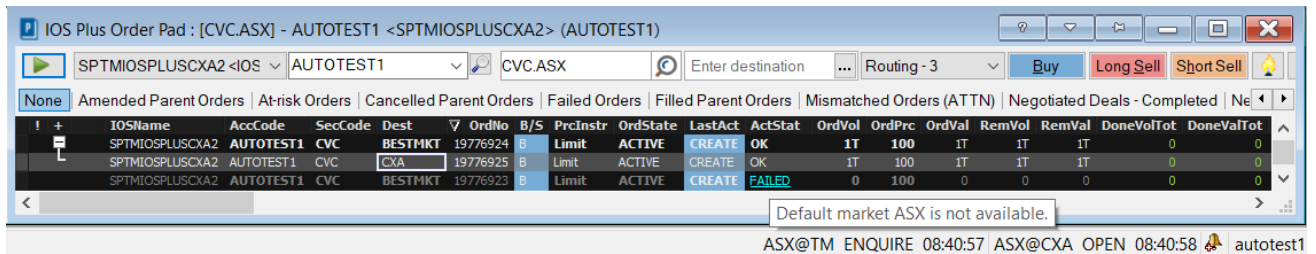
Client's may select to Queue their new orders on the ASX if in the event of a ASX outage the IOS+ and Iress BMR will queue those new orders until the ASX market phase becomes available and ready to execute. This will require some level of attention to the ASX market status if in the event the ASX goes into ENQUIRE or HALTED. This again depends on the decision or policy for your best execution.

In order to setup queuing Steps

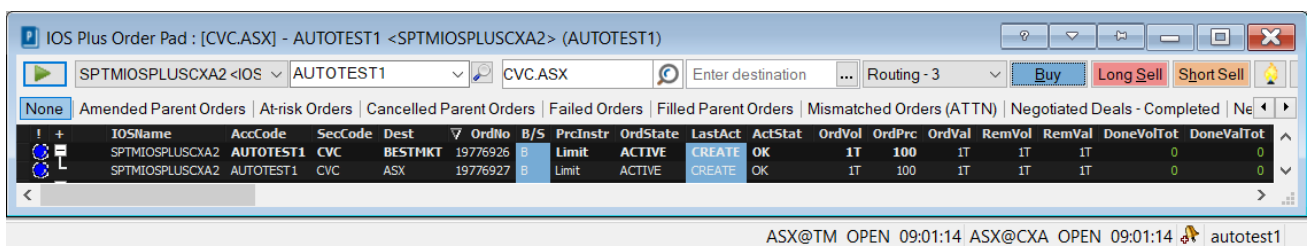
1. In the IOS+ Administration command, under Destinations, find and edit the BESTMKT destination.
2. Navigate to the Strategy Settings and change the **Favoured market logic** setting to "N"
3. Then ensure the **Enable order queuing** and settings is set to "Y"
4. Under the **Default Queuing Markets** setting, change the ASX value (from ASX=ASX to ASX=CXA) - this will ensure the BMR to queue new orders based on the alternative markets phase (which can be configured based on the scenario).

With the above configuration of queuing, if you have both ASX and CXA in your IOS+ configured under the BMR. We have produced the expected behaviour of the Iress BMR in the event of various market phases on ASX and CXA.

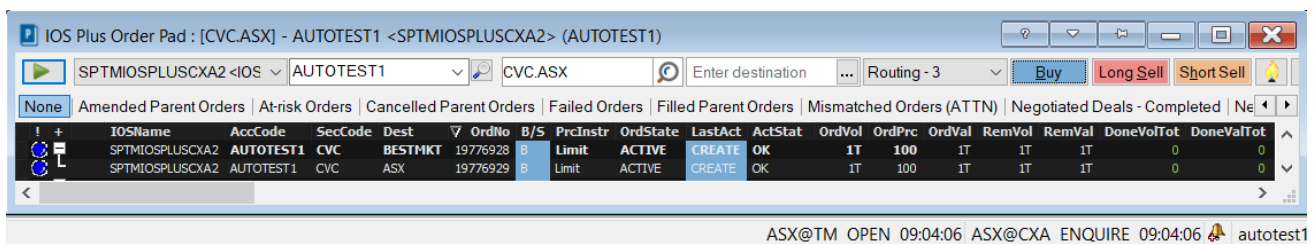
In the event the ASX is in **ENQUIRE** and CXA is in **OPEN**. The Iress BMR will route new orders to the CXA destination.



In the event the ASX is in **OPEN** and CXA is in **OPEN**. The Iress BMR will route new orders to the ASX destination.



In the event the ASX is in **OPEN** and CXA is in **ENQUIRE**. The Iress BMR will route new orders to the ASX destination.



Questions?

If you are a System Administrator or have access to make system changes, you can change these settings under the IOS+ Administration.

It is important to note that all system changes are made in the event of system outages to route to alternative exchanges. Based on the scenario or trading situation, clients are reminded to revert changes if they wish to continue using the Iress BMR before any system outages.

Please speak to your Iress Account Manager who can work with you to configure your Iress BMR based on your business or trading needs.