Instinet »
A Nomura Company

Electronic Trading Information Template

	Instinet Pacific Limited	*Commercial in Confidence*
SFC Code of Conduct Ref/Schedule 7 Ref	**Question**	**Answer**
s 18.4 Management and Supervision/s 1.1 1.1.1(a)	Please introduce your firm, its core businesses as well as its principals, directors, officers and key managers.	Instinet Pacific Limited (IPL) is a corporation (CE No.ABB038) licensed by the Securities and Futures Commission to carry out regulated activities Type 1 (dealing in securities), Type 4 (advising on securities) and Type 7 (automated trading services) under the Securities and Futures Ordinance (Cap. 571) of Hong Kong. We act as an agency broker.
		IPL's management team comprises of the following individuals:
	Please identify the RO(s) responsible for the overall management and supervision of the electronic trading system including their functional job title (you may have multiple ROs for settlement and financial obligations of orders sent to the market through your electronic trading systems as well as implementation of policies, procedures and controls to supervise the orders in accordance with applicable regulatory requirements.) Please note that you may also provide these details in the form of an electronic trading contact sheet, with the ROs clearly identified.	**Stuart Knowling:** CEO **Julie Chew:** CFO **Liam Madden:** Head of General Counsel, Asia Pacific **Peter Lau:** Chief Technology Officer
		IPL's RO for electronic trading is: Dillon McNiven Managing Director, Co-Head of Execution Services
		Rafi Mohideen Managing Director, Head of AEJ Execution Trading
	If you are not a SFC licensed or registered institution, please provide full details of your management and escalation contacts.	Paul Beresford Managing Director, Co-Head of Execution Services
		An Electronic Trading Contact Sheet is available from your coverage trader.

s 18.4 Management and Supervision/s 1.1 1.1.1(b)	Is there a specific governance group that provides review and oversight of the electronic trading system, its policies, procedures and controls? Where is this group based? Is there representation from the dealing, risk and compliance functions, including from the HK office? What are its objectives and how often does it meet?	IPL has a Risk Management and Compliance Committee comprised of persons who have a managerial, supervisory, compliance or risk management role within the IPL business. Its members are based in Hong Kong and the objective is to oversee risk management and compliance activities of the company particularly with reference to the company's licenses for conducting regulated activities with SFC, its activities as a participant of the HKEx and its other activities in the Hong Kong marketplace. The committee meets monthly.
	Is there a Risk Management Framework dedicated to Electronic trading, how often is it reviewed and by whom?	Yes, IPL maintains a separate policy and procedure for electronic trading which includes risk management relating to Electronic trading. It is reviewed by Head of Global Trading Research (Asia), Head of Operational Risk Management, Chief Technology Officer, Asia and Compliance at least annually in consultation with the in house electronic trading team. Changes are approved by the Risk Management and Compliance Committee. More frequent review takes place as required.
s 18.4 Management and Supervision/s 1.1 1.1.1(c)	Outline the reporting structure for employees involved in the design, deployment and day-to-day operation of the electronic trading system?	Design of our electronic platform systems is centralised with Instinet in the USA. Localisation, deployment and day-to-day operation are handled in Hong Kong. The relevant local staff involved in the design, development and support of the electronic trading platform reports into one of the teams outlined below:

Technology: Headed by Peter Lau (Chief Information Officer, Asia)
Trading Research: Headed by Madhu Parthasarathy (Head of Global Trading Research, Asia)
Asia Product: Headed by Richard Appleby (Head of Product, Asia)

In addition to their global reporting lines, each team has a local reporting line to Stuart Knowling (CEO, Asia). Licensed persons, including the ROs for Electronic Trading, are also actively involved in the design and development of the Electronic Trading Platform. |

s 18.4 Management and Supervision/s 1.1 1.1.1(d)	Please detail how often policies, procedures and controls are formally reviewed in order to ensure that they are in line with changing market conditions? By whom are they reviewed?	Policies and procedures (including those relating to our electronic trading system) are formally reviewed at least annually by Head of Global Trading Research (Asia), Head of Operational Risk Management, Chief Technology Officer, Asia and compliance and then tabled for approval by the Risk Management and Compliance Committee. If there are any market conditions that change, the Risk Management and Compliance Committee and/or compliance will examine relevantly affected policies and determine if any amendments or changes are required. This process is ongoing.
	What is the process for addressing any deficiencies identified? Do you restrict internal access to the electronic trading system according to function of staff and how often are access records reviewed?	Deficiencies relating to general operational issues as well as electronic trading system, usage or deployment issues will be identified and discussed at regular Risk Management and Compliance Committee meetings. The Committee will develop action plans to remedy any deficiency and follow up progress in subsequent committee meetings. Meetings are minuted and action items tracked. Yes. Each system has its own login/password process for users. Staff requiring access to the electronic trading system will need to obtain special approval from either the CTO, the Head of GTR Asia or Head of Product Strategy Asia depending on the system in question. PCs are set up in such a way that packages can only be installed by persons with administrator access; Installation of any package requires relevant approval levels. When a staff member resigns or is transferred to a different position their access is terminated immediately. There are also periodic reviews of access. Self-directed flow access is reviewed weekly.
	How often do you conduct a certification process of client accesses?	This is done at least annually.
s 18.4 Management and Supervision/ s 1.1.2	Where you also design, develop and deploy an electronic trading system, please ensure that your answers to 1.1.1 cover these activities.	Noted and included above.

s 18.4 Management and Supervision/ s 1.1.4	Describe which staff are involved in the design, development and offering of the relevant electronic systems for use by clients, illustrating their relevant qualifications and any relevant training.	Instinet has a global development team for its electronic systems. Products are then referred to the relevant region for localisation. Instinet employs highly qualified staff in all locations. Instinet is an electronic trading pioneer and has a long history of employing industry leading staff members. Each member of the development teams has extensive experience in design and development of electronic systems. As part of our hiring processes, staff qualifications and experience are verified against external sources. We can supply individual profiles if required.
	Are relevant staff provided with training on those Firm's policies, risks and controls applicable to electronic trading systems?	Yes. New staff are provided with the firm's general policies and procedures, as well as those relevant to their job function, at their commencement of employment. Each employee dealing with electronic trading must certify that they understand and will comply with the firm's electronic trading policy. The GTR team also provides specialised training on algorithmic trading. We regularly conduct in-house training for all staff on the use of electronic systems and the applicable policies, risks and controls.
	Please certify that you have adequately qualified staff, expertise, technology and financial resources to operate the electronic trading system.	IPL certifies that it has adequately qualified staff, expertise, technology and financial resources to operate the electronic trading system.
	Where your resources are located outside of Hong Kong are they alerted to the SFC's regulations and requirements around Electronic trading?	Yes. IPL is part of the global Instinet group. Development is conducted on a global basis with products then being subject to localisation. Global development staff are aware of the SFC rules and local development staff are required to sign-off on localisation of product before its release ensuring reasonable efforts at compliance are maintained.
s18.5 Adequacy of System	Outline the features (risk controls, supervisory controls, design elements and/or other features) of the electronic trading system designed to ensure the integrity of the system (including as to system reliability, security, capacity and contingency measures).	A number of teams are involved in the monitoring of the trading system using in-house developed monitoring tools which include alert dashboards and other notification tools. Threats to system integrity are notified to the relevant teams.

Regular testing is performed to ensure system reliability and capacity is stress tested to at least 3 times the current peak load. More specific details of risk and supervisory controls, security features and the like are discussed below. |

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s18.5 Adequacy of System/ s 1.2.1(a)	Describe the controls (including how any automated controls operate) implemented in respect of the system to (i) prevent the system generating and sending orders to the market, and (ii) cancel unexecuted orders.	The smart order router in the DMA system can be paused set to reject or shutdown instantly on a per-market basis. A variety of tools are available to support staff to cancel outstanding orders and FIX sessions can be set to autocancel on disconnect. For the algorithmic trading platform, there are a number of ways available to intervene in algorithmic order flow. If there is a problem with a specific order, the order can be suspended (and the client notified) while an investigation is conducted. If the problem relates to more than one order and is affecting a specific destination or destinations, those destinations can be disabled, preventing the algorithms from routing there. Algorithmic engine would automatically stop sending new child orders/replace requests if the request is not accepted by downstream after "10" (configurable) retry actions for any algo parent order, with an error notification for Support team to review the order. Algo Support can also change a destination as destination is disabled. Once a destination is disabled, our Algorithmic engine will not send any new order, revision and/or cancel slices to the disabled destination. Should the need ever arise, in extreme circumstances there is a control interface available through which we can suspend either individual servers or if absolutely necessary, the entire platform – that is, a kill switch. Kill Switch can be implemented immediately at different levels such as at the exchange connectivity, algorithmic order, trader, system and client levels by the technology support team once the Crisis Management Team considered this as the appropriate action in extreme circumstance. More details on kill switch features on algos are described in Risk Controls Experts Algo Training Parameters (Appendix B)
	Describe the circumstances/ situations in which such controls would be activated.	
		There are automated controls in the smart order router which deal with price and movement of the market relative to last traded price based on the price of the security in question. The algorithms contain various automated controls depending on the type of algorithm. For example, there are automated price controls to prevent excessive market impact. More details on these controls are described in Risk Controls Experts Algo Training Parameters (Appendix B)
	Explain the methodology/ factors by which such controls have been derived (e.g. by order size, number, frequency or other relevant criteria).	
		The controls have been derived by reference to market conditions and our experience with various markets. They can include price, order frequency, credit checks, total exposure and so depending upon the market in question. The manual controls are activated in response to need based on performance in the market. For example, in the event of a failure or loss of communication to the market the controls would be implemented as required.
	Are there any additional circumstances in which orders may be overridden or cancelled? If so, how would these controls be implemented?	

		In most of the cases, when an algo order is found violating a control, the order would be put for manual trader review. The trader can review, make any parameter changes and/or override the control (resume) or cancel the order. These details are recorded and reviewed too on a need basis. A weekly report summarizing the number of algo orders put on manual review due to automated controls is generated and reviewed by GTR Asia team. The report is also sent to a subset of Instinet management team.
s18.5 Adequacy of System/ s 1.2.2	Describe your process for regularly testing your electronic trading system and its connections and linkages if applicable, and by whom is it overseen? Are the electronic trading system/platform you provide to clients and all modifications to the system tested before deployment? In what kind of situation would the testing environment not be used? Describe the process and scope for testing any material new functionality, and any generic tests that ensure the overall integrity of the system before modifications are released to the market.	Instinet will perform required manual and/or automated test cases related to associated changes as part of every patch release (about every 2 weeks) . Instinet will perform more generic regression manual/automated tests when any significant system upgrades, trading feature enhancements occur (about every 6 months). Depending on the nature of the change, the testing is performed by the Trading Operations Team, GTR Operations, and/or QA. Releases are tested in a UAT environment before being released into production. Instinet will usually then test new functionality internally with its own traders before offering the feature to external users. This process is overseen by the Electronic Trading Responsible Officer with assistance as required by the Compliance function. The only changes made to the production system that have not first passed through the testing system are very minor configuration changes requested by clients. This usually entails changes to client-specific parameter defaults. Instinet also perform a full regression test including system level testing about every 6 months. This involves retesting the functionality of the algo platform to ensure that no changes being added as part of the new release have inadvertently introduced problems or bugs into the existing system. This is carried out in the User Acceptance Testing (UAT) environment against live production market data and flow. Live flow is

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	Describe your process for deploying your electronic trading systems and any system modifications to users?	duplicated automatically into the UAT environment and the performance and behaviour of the live orders (which are handled by the existing platform) and the UAT orders (which are handled by the new release) are compared.

In addition, test portfolios are synthesised manually with the necessary characteristics to provide more focused testing on areas of high risk or concern. These areas could represent parts of the global framework that have undergone significant change in the new release, or parts of the system that are generally the most active. |
| | Please describe the sign off procedure before deployment. | The levels of sign-off are ordered as follows:
· Technical Approver (Development leads)
· Product Approver (GTR Heads)
· Governance Owner (Legal and Compliance).
· Business Approver (designated Responsible Officer(s))
· Operations Approver (implementing support team leads)
· Senior Management Approver (required in case of emergency releases only)

Only once all levels of sign-off have been agreed may the change be implemented in the production system. |
	How often is the electronic trading system reviewed to ensure that the system and modifications are reliable? How is reliability tested for?	The electronic trading system is monitored in real-time such that any issues are revealed contemporaneously. Similarly, reliability issues are monitored through real-time observation as well as reviews of any system issues or outages. This process is ongoing.
	Please describe how these "health checks" are conducted and the latest result.	Please see above. The process is ongoing.
s18.5 Adequacy of System/ s 1.2.4 (a)	What techniques and processes exist to authorise access to the electronic trading system? What is your security access method? e.g. Encryption, integrated user login with LDAP, specific port.	A variety of different Instinet personnel have differing levels of access to client order and execution information, including operations, information technology, database, credit, risk and compliance personnel. The levels of access (i.e. order, execution, real-time, historical) vary based on job function. Instinet tracks and logs its personnel's access to real-time client order information. Employees are only granted access if required as part of their usual job function. Once granted, employees are aware that they are not to share access to any other staff member. These access controls are

	Describe your controls (including reviews or audits) to authenticate or validate the identity and authority of the system users and ensure access is on a need-to-have basis.	audited regularly to ensure robustness around the authorisations granted. For example, access to the DMA system is reviewed weekly to ensure only authorised staff have visibility The electronic trading system works off a username and password challenge. We use SSL encryption and/or private leased lines or private networks between us and our clients. We have a process for raising user IDs which is controlled by the client on-boarding and compliance team. Each user ID is linked to particular client identity. Internal audit processes govern review of access to the system on a periodic basis. Access is only granted on a need-to-have basis.
s18.5 Adequacy of System/ s 1.2.4 (b)	What security controls do you have in place to protect the confidentiality of orders and to protect the integrity of the trading system?	Logins are issued to a restricted number of staff and each user has tailored access to use/view certain features relevant to their job function.
s18.5 Adequacy of System/ s 1.2.4 (c)	Describe the monitoring tools that are employed to ensure that adequate access controls are in place and that breaches are identified. Describe your operating controls (including reviews or audits) to prevent and detect unauthorised intrusion, security breach or attack.	All attempts to access systems whether successful or not are logged and available for to review. Operation controls by IPL are subject to on-going reviews by external and internal auditors. Our Risk Management team maintain responsibility for creation and maintenance of Instinet's corporate information security policy. The policy is updated on as needed basis. The objectives of information security policies are to: • set forth policies to protect the confidentiality of sensitive information and safeguard it against unauthorised access and disclosure, whether intentional or accidental; • promote the integrity of information assets by setting forth policies to protect such assets from unauthorised accidental or intentional damage, modification, and destruction; and,

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		• ensure the availability of information by establishing policies to assure continued access to information regardless of unplanned business interruptions.
s18.5 Adequacy of System/ s 1.2.4 (d)	Describe the steps taken to raise the awareness of system users on the importance of security precautions, e.g. regular training.	All employees have access to policies and procedures regarding use of the company's systems. Security issues will also be addressed at user training conducted regularly. All employees of Instinet are required to complete a Security Awareness Training annually to assure the awareness of information security within the firm.
s18.5 Adequacy of System/ s 1.2.5 (a)	What capacity constraints exist in the electronic trading system you provide?	IPL's system is currently capable of handling at least 3 times current peak load. A daily and monthly report summarizing the number of algo orders/child orders/market data statistics is generated and reviewed by GTR Asia team. Stress testing is conducted regularly (at least once in a year) considering market conditions, and trade levels are monitored to ensure the system is not overloaded. Where an increase in load is observed over a continuous period, steps will be taken (for example to increase number of servers) to maintain capacity at least 3 times current peak load.
	Is the capacity of the system regularly tested (for e.g. volume testing)? (Please also refer to 1.2.5(b) below)	Capacity planning is an ongoing process and managed ahead of time. Since the architecture is scalable, capacity increases are able to be managed by attention being paid to changes in market conditions.
		In the event of a capacity issue, there is a process to manage this in order to cause minimal possible disruption to trading.
	Are test results used as evidence for effective capacity planning?	Yes.
	Do you have a pre-set modus operandi in place to handle capacity breach issues?	Yes.
	Does the capacity testing and monitoring take account of different market situations, e.g. index rebalancing at close?	Yes.
	Apart from throttling, does the capacity planning take into	

	consideration (algo) performances and other pre-trade controls due to latency? Please certify that capacity usage is regularly monitored and appropriate capacity planning developed.	Yes. Yes, this is certified.
s18.5 Adequacy of System/ s 1.2.5 (b)	Certify that your capacity is regularly stress tested. What process is employed to monitor and test the capacity load of the electronic trading systems? How often are these stress tests done? Are they documented?	Yes. IPL conducts two kind of stress testing. An automated stress testing is done by mimicking regular production flow in a test environment with reduced server capacity on a daily basis. A manual stress testing by pumping a basket of algo orders until the engine/analytics reaches it maximum capacity is conducted 1-2 times in a year to confirm the maximum threshold of each server. Test results are documented where a fault is detected
s18.5 Adequacy of System/ s 1.2.5 (c)	Certify that your system has sufficient capacity to handle foreseeable increase in volumes and turnover	IPL regularly monitors volumes and turnover to ensure capacity. IPL has built in substantial headroom in its systems.
s18.5 Adequacy of System/ s 1.2.5 (d)	What contingency arrangements are employed when capacity load of the electronic trading systems you provide become critical? Who oversees the process? What remedies are employed? How is this communicated to users? Please describe what you would do should a situation occur as described in s1.2.5 (d).	By conducting stress testing regularly and reports to monitor production capacity, increase in capacity load can be anticipated and remedied (e.g. addition of servers). The trading operations team oversees this process. Should capacity issues be encountered, clients will be requested to cease order input or alternatively, the system can be adjusted to reject new flow. In the unlikely event that it did occur, we have a number of options. Firstly, fully loaded servers can be prevented from accepting additional orders in real-time, forcing a balancing to servers with spare capacity. Should we be in a position where there are no servers with spare capacity we are able to start up additional server processes quickly to help relieve some of the capacity concerns.

		There is considerable spare capacity in the environment generally and we have the ability to start new processes to balance flow. Even on peak days, historically we have run on less than 30 per cent system capacity.
s18.5 Adequacy of System/ s 1.2.6	In the event of BCP/DR, do you have trained personnel available to: a) Ensure an electronic trading system user's continued access to a specific market, and b) Ensure that the electronic trading system continues to honour its record keeping requirements during a BCP / DR situation Describe your Business Continuity (BCP) / Disaster Recovery plan as it relates to the electronic trading systems, and the procedure for invoking it. Please include information about any back-up facilities and the testing of the viability and adequacy of the plan.	Yes Yes Documented and tested BCPs are in place for critical business areas across each division. These plans identify the personnel, resources and key dependencies (e.g., third-party organisations) required to recover critical business functions, as well as the various procedures necessary to respond to and recover from a business disruption. IPL maintains a recovery location and work from home capabilities for the continuation of business operations in the event of a business disruption that results in relocation of personnel or functions from its primary business location. The business recovery facility has been equipped to accommodate critical business processes, personnel and associated applications/services. BCP business and technology tests are conducted periodically to validate the effectiveness of BCP procedures as well as the availability and functionality of the critical services at the backup locations in order to demonstrate the ability of business areas to recover critical business functions within specified recovery time objectives.
s18.5 Adequacy of System/ s 1.2.6 (a)	Do you have a suitable backup facility (or recovery site) which will enable you to provide electronic trading services or alternative arrangements for order execution? If yes, where is it located and is	In addition to the primary office in IFC, Central, Instinet maintains a backup office in Kwai Chung, N.T., Hong Kong. This is not a shared facility and is a hot site. In case of emergencies in the primary office, staff are to be sent to the backup office or work from home. Primary datacentre located in Japan is backed up by DR Datacentre located in HK.

	it a dedicated or shared facility?	
	How do you inform clients on scenarios where either a backup facility may not exist, or where constraints may be encountered (e.g. reduced capacity or latency) or where there is a need for a specific pre-requisite from the client themselves (e.g. backup servers in co-location).	Clients are contacted to inform them of the situation and the likely downtime. Trading staff are to maintain up to date client records for this purpose. IPL will use standard methods of communication to communicate to clients.
	How much time does your firm require in order to switch between production and the DR site for the electronic trading system?	
s18.5 Adequacy of System/ s 1.2.6 (b)	Please describe your arrangements to ensure business records, client and transaction databases, servers and supporting documentation are backed up in an off-line medium.	All business records, databases, servers and supporting documentation are backed up daily in an off-line medium. Depending on the information type, the backup is either completed locally in Hong Kong or in the US (for example, client records and local servers are backed up in Hong Kong and transaction databases are backed up on US servers).
	Do you have offsite storage? If yes, please outline the firm approach to security of offsite storage.	Yes. We have policies and procedures in place reasonably designed to apply with applicable laws, rules and regulations. Backups are taken offsite daily in Hong Kong.
s18.5 Adequacy of System/ s 1.2.6 (c)	How does the firm monitor regulatory, legal and compliance enquiries?	All regulatory, legal or compliance queries are directed to and handled by the Legal and Compliance group, who will communicate with regulators and clients on legal or compliance issues.
	Are there provisions under the BCP and DR plan for trained staff to deal with client and regulatory enquiries? Who is responsible for communications with regulators and clients?	Legal and Compliance staff members can login remotely and handle client and regulatory enquiries in the usual manner.
		If it relates to regulatory issues, the prime contact is the Head of Compliance, Hong Kong and General Counsel, Asia who are SFC complaints officers.

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s18.5 Adequacy of System/ s 1.2.7	How often is the contingency plan tested to ensure that it is adequate? When was its last tested?	We have a testing schedule for our BCP/DR contingency plan. The BCP is updated annually with input from each department head to ensure the plan is current and workable. Instinet conducted a full DR site test in March 2019 with teams from Front office to back office working "Live" from the DR site or remote accessing from home. All applications and systems worked at the DR site. We note that the planned DR site test scheduled for March 2021 was not conducted due to COVID-19. It is noted that the DR site was used throughout 2020 as part of the segregation of staff strategy implemented by Instinet with no systems issues identified. The next live test of the DR site is planned for Q1 2022
s18.5 Adequacy of System/ s 1.2.8	How are major system failures or delays addressed and what procedures are in place to rectify them? What procedures are in place to ensure steps are taken to prevent past issues from reoccurring?	Major failures with the trading system software can be addressed by rolling back to the prior version of the program. All major failures or delays will be reviewed and remedial action taken to prevent future occurrence. This can be done once an issue is detected. We have comprehensive policies and procedures around dealing with failures and delays which include post-incident analysis, diagnosis and remediation. This process is undertaken by trading operations who are required to report those incidents to management and then to the Risk and Compliance Committee for review. In the event of serious failures, the business will evaluate situation with input from technology. A determination will be made whether to reject orders from clients and make appropriate notifications to clients. We would also determine whether to stop sending orders to exchange(s) and if necessary force cancel currently live orders on exchange(s). Once an issue is identified and rectified, we perform a reconciliation and position check and restart the systems. Extant positions and errors are closed and finalised where needed.
	Are there clear guidelines in place to inform the user in cases of a system disruption including information as to how and when the issue will be resolved? If yes, what are those guidelines?	Yes. Standard practice is to notify users promptly as to the extent of the disruption and the estimated downtime.

s18.6 Record keeping/ s 1.3.1 (a) (general), s 3.4.1 (algos)	Describe what records and documents your firm prepares and maintains relating to the following: a. design, development and modification, b. testing and review, and c. risk management controls of (i) the electronic trading system and (ii) if applicable, the algorithmic trading system and trading algorithms. How often does your firm review and update these records and documents? Certify that you keep comprehensive documentation of the design and development, including any testing, reviews, modifications, upgrades or rectifications of your system Algos – Design and development, including modifications, of algos in writing. That the documentation shows the rationale for the design, development and modification, as well as their intended outcome. That these records are retained for a period of no less than 2 years after your system and algorithms cease to be used.	IPL certifies that it keeps all required records and that it retains them in pursuant to 1.3.2 of Schedule 7 of the Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission. These are reviewed regularly by the Risk Management and Compliance Committee and updated as required when releases and changes are made. IPL certifies it is in compliance.
s18.6 Record keeping/ s 1.3.1 (b)	Certify that you keep comprehensive documentation of the risk management controls of your system and that these records are retained for a period of no less than 2 years after your system and algorithms cease to be used.	IPL certifies that risk management controls are documented and records retained for no less than 2 years after the system and algorithms cease to be used.
s18.6 Record keeping/ s 1.3.1 (c), Annex to Schedule 7	Please confirm that your firm maintains an audit log that documents the order process and transaction flow through (i) the electronic trading system and (ii) if applicable, the algorithmic trading system. Please summarise the information that your firm maintains as part of the audit log.	Instinet can access the following data in relation to order-related information. This data repository retains all order-related information which includes: 1. Name of the client 2. Person placing order on client's behalf 3. Date & time of order receipt

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4. Name of the security
5. The number of securities to be bought or sold
6. Price or price-related instructions
7. Any order amendment details
8. Any order cancellation details

The data retained in relation to executed order details are as follows:

1. Market Order Id
2. Trade Date Time
3. Quantity
4. Price
5. Value
6. Buy / Sell
7. Stock Code
8. Account Name / Number
9. Time Stamp of order execution

Certify that you maintain audit logs as set out in Annex to Schedule 7 and that these records are retained for a period of no less than 2 years after your system and algorithms cease to be used.	IPL certifies that records are retained for a period of 7 years.
s18.6 Record keeping/ s 1.3.1 (d), Annex to Schedule 7	Describe what reporting your firm maintains for material system delays or failures. [Please state what you consider to be "material system delays or failures" for this purpose and give examples.]	Where an incident occurs that disables or impairs our technology, this is considered a material system delay/failure and the Crisis Management Team (CMT) is notified. The CMT will determine the appropriate action to be taken. After each event, the CMT will prepare a report summarizing the events that occurred and the action taken. This will be reviewed by management and the Risk Management and Compliance Committee.
	Certify that you maintain incident reports as set out in Annex to Schedule 7 and that these records are retained	IPL certifies that records are retained for a period of not less than 2 years after the system and/or algorithm ceases to be used.

	for a period of no less than 2 years after your system and algorithms cease to be used.	
s18.6 Record keeping/ s 1.3.2	What is your record retention policy for the documentation, audit logs and incident reports that your firm maintains in relation to (i) the electronic trading system and (ii) if applicable, the algorithmic trading system? How does your firm maintain such documentation, audit logs and incident reports; and what controls are in place to monitor access to this information?	Records are retained in pursuant to 1.3.2 of Schedule 7 of the Code of Conduct for Persons Licensed by or Registered with the Securities and Future Commission. Data is kept electronically. Access to audit logs is restricted to authorised personnel only.
s18.6 Record keeping/ s 3.4.2	Confirm that, when you design, develop or modify the algorithmic trading system or trading algorithms, you document (i) the rationale, and (ii) the intended outcome, of the design, development or modification. Confirm that, for each order, your firm records the parameters which the algorithmic trading system and trading algorithms take into account. How long are these records kept? Certify that records of all the parameters which your algorithmic trading system and trading algorithms take into account for each order are kept and retained for a period of no less than 2 years.	All design, development and modification of the algorithmic trading system is documented by the JIRA and/or system and retained in accordance to 1.3.2 of Schedule 7 of the Code of Conduct for Persons Licensed by or Registered with the Securities and Futures Commission. . In addition, the rationale and intended outcome of each amendment is documented and approval process tracked in our Change Management system. Records are kept to this degree of detail. Client order records are retained for a minimum of 7 years. IPL certifies that records of all the parameters which its algorithmic trading system and trading algorithms take into account for each order are kept and retained for a period of no less than 2 years.
s18.6 Record keeping/ s 3.4.3	Certify that records of the reviews and tests conducted under paragraph 3.2.2 setting out the scope of findings of the tests are kept and are retained for a period of no less than 2 years.	As above.

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s18.7 Risk Management – Internet trading and DMA / s 2.1.1	Describe the internet trading or DMA services': a) pre-trade risk management controls b) post-trade monitoring programme (including what risks are monitored for, how they are monitored and how frequently). Explain the methodology by which the licensed person has determined the limits and controls are appropriate in (a) and (b) above. Describe how, and how often, these limits and controls are reviewed.	Instinet controls the maximum order size (measured in order value, not number of shares) that can be sent out to market. This can be controlled and customised by local market currency (e.g., one limit for trades in USD, another control for trades in JPY, another for EUR, etc.). Instinet has found that order size controls used to limit the number of shares in an order was impractical and often inconvenient/problematic especially in emerging markets. In addition, there are also aggressive price control checks to prevent orders from going out to the market with inappropriate limit prices. Again, these are controlled at the currency level in order to accommodate for relative quote sizes across global markets. In Newport, users can define trading constraints that control the maximum number of shares, maximum percent of ADV, maximum value in currency or price margin. These can be defined to warn the user, to both warn the user and hold the order, or to give the user an error that will prevent the trade from going out until the constraint is satisfied. These constraints can be user-specific or shared across a common desk. These matters are reviewed by the Risk Management and Compliance Committee on an ongoing basis. The Committee meets monthly.
s18.9 Qualification – algo trading	Certify that you have policies and procedures to ensure persons (a) involved in design/development of algos, and (b) approved to use algos are suitably qualified.	Instinet's HR division conducts relevant screening such that only suitably qualified and experienced persons are considered for electronic trading positions. Potential candidates must pass technical aptitude tests, relevant interviews and a home project assignment . New employees' references and qualifications are checked against external sources prior to the commencement of their employment.

s18.9 Qualification – algo trading/ s 3.1.1	Please describe the level of training and support that you will provide to clients regarding:
	 - Use and operation of the systems and trading algorithms
	 - Compliance and regulatory issues which may arise from the use of the systems and trading algorithms
	 - (in respect of each trading algorithm)
	    o its trading characteristics and execution behaviour,
	    o potential market impact and risks to market integrity, and
	    o regulatory constraints on use
		All clients will receive a detailed user manual and be offered training provided by our Electronic Trading and GTR teams to familiarise themselves with the algorithmic trading system. Clients are covered by the electronic trading team which can be contacted at any time if they encounter any issues with the trading system.
		
		 IPL is happy to assist clients with matters concerning compliance and regulatory issues to be aware of through training if it is requested by the client.

	Please supply copies of the relevant training documentation that will be used for training support.	The documentation is attached.
s18.9 Qualification – algo trading/ s 3.1.3	Certify that you will provide us with timely training on material changes to your the use and operation of the algorithmic trading system; each of the trading algorithms contained in the algorithmic trading system including: its trading characteristics and execution behaviour; the potential market impact and risks to market integrity; and whether it is appropriate to use a particular trading algorithm under certain market conditions in the execution of certain orders in light of the regulatory requirements.	IPL is happy to provide training to its clients as required. IPL will provide all relevant details in such training to its clients as required.
s18.9 Qualification – algo trading/ s 3.1.4	Please describe your procedures for informing a user in a timely manner of any changes in the design and development of the systems and trading algorithms.	Where a material change in the design or development of the trading algorithms is implemented, clients will receive an updated user manual and / or be contacted by a representative from GTR/Electronic Trading Team .
s18.9 Qualification – algo trading/ s 3.1.5	Please supply copies of up-to-date documentation on the use of the systems and trading algorithms. The documentation should include (i) an explanation on how to operate the systems and trading algorithms, and (ii) a description of the applicable risk, supervisory and compliance controls. How often does your firm review and update these documents?	These are attached. These are reviewed at least quarterly and whenever a material change to the system occurs.
s18.10 Testing – algo trading	Certify that your algorithm trading system and the algorithms we have access to are adequately tested to ensure they operate in the manner for which it is designed.	IPL certifies that it conducts regular testing to ensure the algorithmic trading system is operating within the designated parameters.

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s18.10 Testing – algo trading/ s 3.2.1 (a)	Certify that the design and development of the algorithms we have access to have taken into account i) foreseeable extreme market circumstances and ii) the characteristics of different trading sessions such as auctions and continuous trading	IPL certifies that in the design and development of the algorithms to which its clients have access it has taken steps to reasonably take into account i) foreseeable extreme market circumstances and ii) the characteristics of different trading sessions such as auctions and continuous trading. Algorithmic trading development supports an automated testing framework where specific market scenarios like extreme market circumstances or characteristics of different trading sessions can be mimicked and the trading behaviour of algo orders can be verified. These automated tests would be triggered upon every code change made in the system and all tests have to be passed for the new code change to be successfully integrated in to the system
s18.10 Testing – algo trading/ s 3.2.1 (b)	Describe how the algorithms take into account foreseeable extreme market condition scenarios and the characteristics of different trading sessions	The design, development, testing and release of the algorithms are centred around dealing with foreseeable market conditions and characteristics of different trading sessions. Algorithmic trading development supports an automated testing framework where specific market scenarios like extreme market circumstances or characteristics of different trading sessions can be mimicked and the trading behaviour of algo orders can be verified. These automated tests would be triggered upon every code change made in the system and all tests have to be passed for the new code change to be successfully integrated in to the system
s18.10 Testing – algo trading/ s 3.2.1 (c)	Please outline how you ensure that application deployment will not interfere with the operation of a fair and orderly market	This is done throughout the design, development and testing phases and through monitoring algorithm performance once released to maintain optimal performance. Relevant manual/automated test cases covering every change in any release are executed and full functional regression tests of whole algorithm system is conducted about once in every 6 months. A number of automated controls as described in Risk Controls Experts Algorithmic Training Parameters (Appendix B) Dec are designed to ensure algos will not interfere with the operation of fair and orderly market. A weekly report of algo orders put on hold for manual review by these controls are generated and reviewed by GTR Asia team
s18.10 Testing – algo trading/ s 3.2.2	After deployment do you test at least annually the ability of the systems and trading algorithms to (i) handle sizeable trading volumes, and (ii) execute orders without interfering with the operation of a fair and orderly market?	The GTR team completes capacity and stress testing every week. In addition, capacity testing will also occur prior to each system upgrade, enhancement or bug fix All testing is conducted in-house, in Hong Kong. No third party providers are used.

	Who performs these tests? Do you use third party providers? Please outline the key metrics within your due diligence procedures to ensure third party providers conduct an equivalent level of testing of their algorithmic trading system and trading algorithms	N/A
s18.11 **Risk** **Management –** **Algorithmic** **trading/** **s 3.3.1 (a)(i)**	Describe the controls (including how any automated controls operate) implemented in respect of the system to prevent generation / processing of trade orders that may be erroneous or interfere with the operation of a fair and orderly market.	The algorithmic trading system has both mandatory and user-determined filters/checks. These must comply with our algorithmic development policy. These filters prevent the generation of trade orders that may be erroneous or interfere with a fair and orderly market. Details of these controls are explained in the attached algorithm manual and training package.
s18.11 **Risk** **Management –** **Algorithmic** **trading/** **s 3.3.1 (a)(ii)**	How does the firm define/ consider the circumstances that could give rise to a disruption in the operation of a "fair and orderly market" for these purposes?	Orders that breach volume and price filters (mandatory filters, in accordance with our algorithmic development policy) will not be sent to the market. The firm utilises the expertise of its legal and compliance teams to monitor market rules, regulations and customs and incorporate this advice into the design and development of the algorithms.
s18.11 **Risk** **Management –** **Algorithmic** **trading/** **s 3.3.1 (b)**	Describe the controls (including how any automated controls operate) implemented in respect of the system to protect the firm and clients using the algorithmic trading system from excessive financial risk. How does the firm define "excessive financial risk" for this purpose? Does/ how does the firm monitor for such risk?	Users may prescribe their own financial parameters (in addition to mandatory filters) when customising the algorithmic trading program to reduce financial risk. We are able to work with individual clients to create customised controls. We have also made recommendations as to matters clients should consider when designing their own customised controls. Mandatory controls also exist. Daily trading is monitored to ensure trades meet pre-determined financial parameters. There are credit limit checks done a client-by-client basis.

| s18.11 Risk Management – Algorithmic trading/ s 3.3.2 (a) | Describe the firm's post-trade review process in respect of algorithmic trading activities by clients.

What risks are reviewed and monitored for? How frequently?

If risks are identified, what steps are taken to escalate, redress and notify relevant parties of these risks, and prevent re-occurrence? | IPL's Electronic Trading team regularly provides post-trade reviews for their clients. Any issues will be discussed with the client and remedial action taken. Compliance also monitors all IPL trading including via algorithms. In addition, the GTR team conduct post-trade reviews at an algorithm level as part of the strategy refinement process.

IPL monitors for errors, market impact, price performance, excessive trading etc. as well as any ad hoc issues that may arise.

Depending on the nature of the risk identified it can be raised to the relevant Responsible Officer, the Head of Compliance, General Counsel, the CEO and the Risk Management and Compliance Committee. Issues are dealt with using IPL's incident report process which includes investigation, diagnosis, remediation and monitoring. The incident reporting process is overseen by the Risk Management and Compliance Committee. |

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