

Networking IO

The following blocking operations are *fiber friendly* in the current prototype; these methods do not pin the carrier thread when the operation blocks.

API	Methods	Notes
java.net.Socket	connect, read, write	
java.net.ServerSocket	accept	
java.nio.channels.SocketChannel	connect, read, write	socket adaptor connect, read, and write also okay
java.nio.channels.ServerSocketChannel	accept	socket adaptor accept also okay
java.nio.channels.DatagramChannel	read, receive	socket adaptor receive also okay write and send do not block
java.nio.channels.Pipe.SourceChannel	read	
java.nio.channels.Pipe.SinkChannel	write	

The following blocking operations are not currently *fiber friendly*, these methods pin the carrier thread when the operation blocks.

API	Methods	Notes
java.net.DatagramSocket /MulticastSocket	receive	This will be resolved when DatagramSocket's implementation is replaced
java.net.InetAddress	getByName, getAllByName, ..	These methods block in NSS/equivalent and are invoked using a <i>ManagedBlocker</i> to allow the number of carrier threads to increase when fibers are blocked in these lookup mechanism. Alternative options being explored are using a separate thread pool for lookups or dusting off the JNDI DNS provider.
java.nio.channels.Selector	select	Selection operations are specified to synchronize on the selector and the selected-key set. May not be a concern as code using fibers should not need to use non-blocking I/O and Selectors.