

# 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	Relies on JEP 353
java.net.ServerSocket	accept	
java.nio.channels.SocketChannel	connect, read, write	connect, read, and write on the socket adaptor obtained via SocketChannel::socket also okay
java.nio.channels.ServerSocketChannel	accept	accept on the socket adaptor obtained via ServerSocketChannel::socket also okay
java.nio.channels.DatagramChannel	read, receive	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	receive	Need to investigate if receive can be done without synchronizing on the DatagramPacket (unspecified but long standing behavior)
java.net.InetAddress	getByName, getAllByName, ..	These methods block in NSS/equivalent. Several operations to explore including using a thread pool 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.