# RapidIO Subsystem Guide

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## Introduction

RapidIO is a high speed switched fabric interconnect with features aimed at the embedded market. RapidIO provides support for memory-mapped I/O as well as message-based transactions over the switched fabric network. RapidIO has a standardized discovery mechanism not unlike the PCI bus standard that allows simple detection of devices in a network.

This documentation is provided for developers intending to support RapidIO on new architectures, write new drivers, or to understand the subsystem internals.

## Known Bugs and Limitations

### Bugs

None. ;)

### Limitations

1. Access/management of RapidIO memory regions is not supported
2. Multiple host enumeration is not supported

## RapidIO driver interface

Drivers are provided a set of calls in order to interface with the subsystem to gather info on devices, request/map memory region resources, and manage mailboxes/doorbells.

### Functions

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\admin-guide\(linux-master)(Documentation)(admin-guide)rapidio.rst, line 45`)**
>
> Unknown directive type "kernel-doc".
>
> ```
> .. kernel-doc:: include/linux/rio_drv.h
>    :internal:
> ```

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\admin-guide\(linux-master)(Documentation)(admin-guide)rapidio.rst, line 48`)**
>
> Unknown directive type "kernel-doc".
>
> ```
> .. kernel-doc:: drivers/rapidio/rio-driver.c
>    :export:
> ```

> **System Message: ERROR/3 (`D:\onboarding-resources\sample-onboarding-resources\linux-master\Documentation\admin-guide\(linux-master)(Documentation)(admin-guide)rapidio.rst, line 51`)**
>
> Unknown directive type "kernel-doc".
>
> ```
> .. kernel-doc:: drivers/rapidio/rio.c
>    :export:
> ```

## Internals

This chapter contains the autogenerated documentation of the RapidIO subsystem.

### Structures

## Enumeration and Discovery

## Driver functionality

## Device model support

## PPC32 support

# Credits

The following people have contributed to the RapidIO subsystem directly or indirectly:

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3. Dan Malek[dan@embeddedalley.com](dan@embeddedalley.com)

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