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BOOST YOUR NETWORKING PERFORMANCE

MULTI-GIGABIT POINT-TO-MULTIPOINT DATA TRANSPORT

Discover the Reliable Multi-Destination Transport Protocol (RMDT) for big data delivery.

WHAT IS RMDT?

RMDT* (**Reliable Multi-Destination Transport Protocol**) is a solution for fast data transmission over high-capacity WAN networks. It easily handles high packet delays and jitter as well as significant packet losses on a channel. The protocol is built upon the standard UDP, so it does not require special hardware or additional proprietary drivers – it just works in legacy IP infrastructures. The key novelty of the protocol is that it can handle data delivery to many destinations in one session. So delivery of big data sets to several destinations consumes much less system resources and much less time as any another solution.
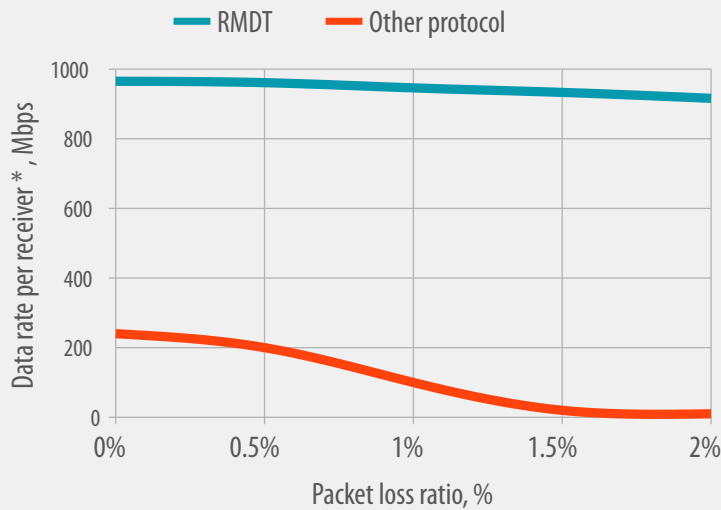
RMDT has centralized transport control mechanism which allows to deliver data to several destinations semi-simultaneously. The protocol handles all the transmitted data opaque way, so no data compression or data deduplication is used, therefore, it is applicable for any kind of data sets like files, data bases or video content. In case of bad connection conditions to a particular destination, the protocol is able to separate the bad node and handle it individually: e.g. just drop respective receiver from the session or deliver that in a separated low-speed session without slowing down the "healthy" receivers. All products based on **RMDT** are available in two modes:

- Advanced: up to 2 receivers; total data rate up to **2 Gbps**
- Enterprise: up to 10 receivers; total data rate up to **10 Gbps**

RMDT FEATURES:

- Multiple recipients within a single session
- Reliability on the full rate over WAN
- End-to-end 10G communication (1x10)
- Efficient system resources consumption
- Legacy IP infrastructure
- Suitable for streaming

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Data rate per receiver * , Mbps

— RMDT — Other protocol

Packet loss ratio, %

* RTT of connections - 300 ms.
Test case: transmission of 30 GB from one sender to 3 recipients

WIDELY APPLICABLE FOR:

CDN

Backups, replications

Heavy content productions

RMDT INTEGRATION OPTIONS

RMDTSDK

SDK provides a fully functional **Reliable Multi-Destination Transport Protocol**, which is able to send data in a point-to-multipoint way (one sender to many destinations) as well as point-to-point. **RMDT** is available as a software library written in C++ and pre-compiled for GNU/Linux OS. The protocol has intuitive socket-like semantics what makes it easy to build into the customer application.

Ability to handle typical IP network impairments such as packet losses, latency and jitter, as well as ability for cascading: one receiver can act as a sender to further recipients; provides incredible flexibility for application architects to create complex work flows for solving nearly all networking issues, where transmission of huge amount of data is required.

DATACLONE

DataClone is a command line file transfer application based on RMDT. It is designed for a very fast delivery of extra large files to both, single and multiple destinations around the globe. Due to its flexibility, the application can be widely applicable for backups, replications and heavy content productions such as cinema industry, research etc.

The unique feature of the **DataClone** – simultaneous file delivery to multiple destinations – makes it indispensable for CDN services. Moreover, doing several replications of your business-critical data at different locations in once makes your business more reliable. With **DataClone** such replications will be fastly uploaded to all necessary destinations regardless on their size and the distance between the involved nodes.

STREAMCLONE

StreamClone is a multi-destination streaming application based on **RMDT**. The application delivers reliable streams of bytes to a single or multiple destinations. Novel **RMDT** algorithms deliver data with incredibly low latency and multi-gigabit rates to recipients, which gives wide opportunities for a number of streaming applications such us streaming of uncompressed high-resolution video, gaming and many other different workflows.

The product especially targeted at cinema industry. Its unique feature of reliable multi-destination delivery overcomes a common limitation of a multicast. In contradictory to multicast, **RMDT** Streams can pass over WAN networks, where in most of the cases multicast is prohibited due to its vulnerability. (Available on demand)

RMDTGATEWAY

It requires dedicated server machines, which run the **RMDT** gateway application. It could be configured to either accelerate a certain traffic type (e.g. FTP). Thus heavy FTP traffic will be transparently accelerated between necessary locations and all other services will work in the default mode. (Available on demand)

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