



## LTO vs. RDX



In recent years there has been much debate about Disk vs. Tape based backups, opinions about the future of Tape backups vary greatly, but there can be little doubt that as disk becomes more affordable, the role for tape will continue to change over time.

Traditionally, one of the major advantages Tape has over Disk is it's portability for offsite backups – as there are fewer moving parts in a tape cartridge, they are generally more robust and therefore safer to transport, and have a longer shelf life.

RDX technology has emerged in recent years to challenge Tape's advantage in this area; a ruggedized Disk based backup System that operates in much the same way as tape, RDX cartridges can be dropped from 1 meter onto a concrete floor without damage, and have a shelf life of 30+ Years (as demonstrated by international Ecma standards)

### Quick Comparison Table

	LTO	RDX
Read / Write Speeds	Faster Sequential read / write, Good for large sequential Backups	Faster random access times, quicker to retrieve individual files from backups
Cost	Cost of Drives substantially higher, Cost of Tapes substantially lower	Cost of Drives Substantially Lower, Cost of Cartridges Substantially Higher
Max Capacity	1.5TB per tape Native on LTO5	1TB Cartridge
Backwards / Forwards Compatibility	Reads back 2, writes back 1 (LTO 5 can write to LTO4 Tapes, Read LTO3 and LTO4 Tapes) No forwards compatibility (LTO4 can't read / write LTO 5 Tapes)	RDX Drive can read all cartridge sizes

### How to Determine the Appropriate Solution

To decide whether LTO or RDX drives are right for you / your client, you should consider the following:

- Total Amount of Data to be backed up
- Number of Tapes / Cartridges on rotation
- Restore Points Required
- Data Retention / Archiving Requirements

In General, RDX is most suitable for clients who want to back up smaller datasets and don't need to archive lots of data for an extended period, LTO is a better option for clients with large datasets to backup, and / or who want to archive data for extended periods. Below are a few scenarios to illustrate this (all prices below are AUD EX GST, RRP.)

### **Client Example 1 – Recommend RDX**

*In the below example RDX would be the most cost effective solution – almost half the price of the equivalent LTO solution*

Daily Backup:	100GB
Weekly Backup:	400GB
Restore point Retention Requirement:	1 week
Tape / Cartridges on Rotation:	6

#### **Cost of LTO Solution:**

LTO3 HH SAS External Drive	\$1881
6x LTO3 Tapes	\$210
Total:	<b>\$2091</b>

#### **Cost of RDX Solution:**

RDX External USB Drive	\$198
5x 160GB Cartridges	\$705
1x 500GB Cartridge	\$276
Total:	<b>\$1179</b>

### **Client Example 2 – Close call!**

*In the below example the Pricing is very close, decision would come down to other factors.*

Daily Backup:	400GB
Weekly Backup:	1.3TB
Restore point Retention Requirement:	1 week
Tape / Cartridges on Rotation:	6

#### **Cost of LTO Solution:**

LTO4 HH SAS External Drive	\$1971
6x LTO4 Tapes	\$252
Total:	<b>\$2223</b>

#### **Cost of RDX Solution:**

RDX External USB Drive	\$198
5x 500GB Cartridges	\$1380
2x 750GB Cartridge	\$762
Total:	<b>\$2340</b>

### **Client Example 3 – Recommend LTO**

*In the below example, LTO would be the most cost effective solution, nearly half the price of RDX*

Daily Backup:	400GB
Weekly Backup:	1.3TB
Restore point Retention Requirement:	2 weeks
Tape / Cartridges on Rotation:	12

#### **Cost of LTO Solution:**

LTO4 HH SAS External Drive	\$1971
12x LTO4 Tapes	\$504
Total:	<b>\$2475</b>

#### **Cost of RDX Solution:**

RDX External USB Drive	\$198
10x 500GB Cartridges	\$2760
4x 750GB Cartridge	\$1524
Total:	<b>\$4482</b>