TapeTrack Primer

The purpose of this section is to describe the history, design methodology and benefits of TapeTrack.

It is not required reading, but it might provide users with some insight into how to get the best out of their use of the product; it is effectively a FAQ of the non-technical questions we are asked from time-to-time.

What is TapeTrack?

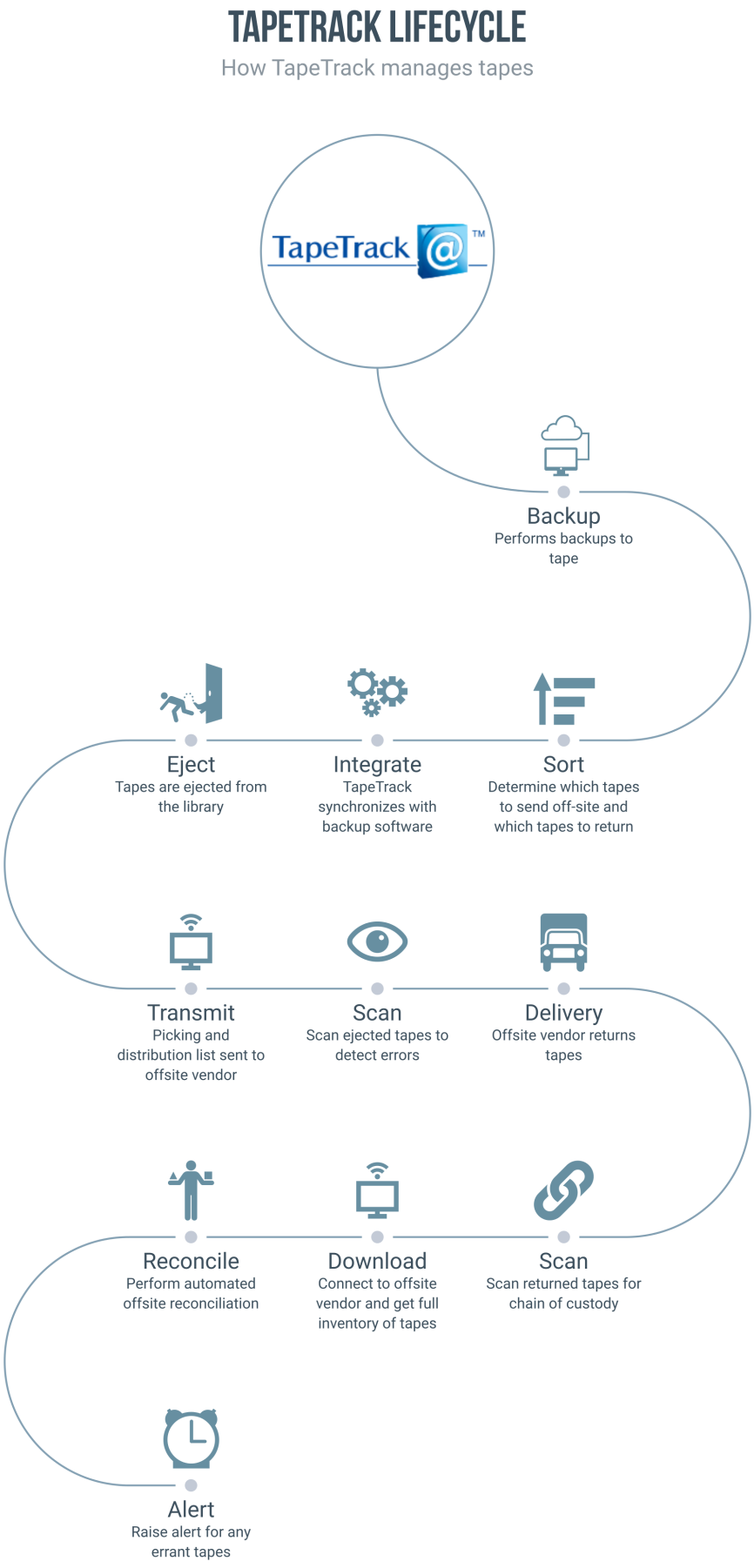
TapeTrack is computer software designed specifically for the purpose of managing computer backup tapes.

Why do you need TapeTrack?

Tape has been in use for many decades and each enterprise has developed tape management processes that are unique, but generally speaking, you need TapeTrack because each of the components involved in the tape management process only provide very narrow functionality:

1. Backup software focusses on writing data to tapes and only keeps an inventory of tapes that it knows about.
2. Robotic Libraries only know about the tapes in their slots, and don't know which tapes are expected to be in the library.
3. Tapes that are outside robotic libraries have no software at all to keep track of them in racking units.
4. Off-site vendors know about the tapes they have (ideally) and sometimes they make mistakes.
5. When ejecting tapes, sometimes the library misses tapes, or ejects tapes that aren't part of the batches that are being sent off-site.
6. There is no way of tracking unbarcoded tapes before they are used.
7. There is no one list of every tape owned (or ever owned) by the enterprise.
8. There is no history of the movements of each tape that includes which operators touched them.
9. There is no way to ensure that each library (or virtual library) has enough scratch tapes to get through the backup workload.

What is the TapeTrack Workflow


TAPETRACK LIFECYCLE
How TapeTrack manages tapes
TapeTrack
Backup
Performs backups to tape
Sort
Determine which tapes to send off-site and which tapes to return
Integrate
TapeTrack synchronizes with backup software
Eject
Tapes are ejected from the library
Delivery
Offsite vendor returns tapes
Scan
Scan ejected tapes to detect errors
Transmit
Picking and distribution list sent to offsite vendor
Scan
Scan returned tapes for chain of custody
Download
Connect to offsite vendor and get full inventory of tapes
Reconcile
Perform automated offsite reconciliation
Alert
Raise alert for any errant tapes
GazillaByte LLC

Who uses TapeTrack?

TapeTrack is used by over 4,000 enterprises around the world.

These enterprises fall into the following categories:

1. Data protection companies who store backup tapes on the behalf of multiple other companies (a list of these companies can be found here).
2. The direct customers of data protection companies who use TapeTrack both manage their on-site tapes, and the tapes stored offsite with their vendor.
3. Data Center customers who manage their own on-site and offsite tape inventories.
4. Data Center customers who manage their own on-site inventories and use the services of a data protection company who do not offer TapeTrack services.

What is the history of TapeTrack?

The first version of TapeTrack was released in 1999, and the product has been continually developed since that date with input from a growing customer base.

The original developer of TapeTrack was Tape Management Services Pty Ltd, who then became TapeTrack Pty Ltd, and is now GazillaByte LLC.

What is the design methodology of TapeTrack?

TapeTrack is designed around the 5 Pillars of Tape Management:

1. Asset Management: A complete list of every single tape.
2. Chain-of-Custody: Where each tape has been and who has touched it.
3. Library Management: Where each tape needs to be.
4. Disaster Recovery: Are all my critical tapes offsite?
5. Quality Control: Am I managing my tapes properly?

TapeTrack Jargon

TapeTrack has a whole bunch of terms that you should familiarize yourself with.

Term	Description
Adapter	An ODPAPI web service interface, represented by a URL address. The TapeTrack ODPAPI Adapter allows TapeTrack App software or user written queries to interface with TapeTrack via a convenient REST interface.
Confirmation	The process of telling TapeTrack that a tape is now in its Target Repository.
Current Location	The location where a tape is believed to be, or in the case of a moving tape, the starting point at which the tape may be (i.e. the tape is somewhere between the Current and the Target location).

Term	Description
Client	A TapeTrack software component used for interfacing with the TapeTrack Framework Server.
Mirroring	The process of replicating selected TapeTrack objects from one TapeTrack Framework Server to another. This is often used by data centers who run their own TapeTrack system globally and wish to keep their offsite vendor's TapeTrack up to date in a local location.
Movement	The process of requesting a tape be moved from one location to another (updating the Target Repository).
Move Status	A tape that has been identified as having to move from one location to another (i.e. the Target location does not equal the Current location).
Next Move Date	The date at which a Volume will move to the Next Repository.
Next Repository	The Repository defined as the `Next Repository` for a given Current Repository.
Overdue	A tape was put into a move status and the maximum allowable time for the Target Repository, or the tape specifically (if specified) has elapsed (i.e. a tape is moving from the TS3500 to the on-site racking, the on-site racking has a threshold move allowance of 10 hours, and the tape was put into a move status more than 10 hours ago).
Reconciliation	The process of comparing an external inventory (such as an offsite vendor list or ATL query output for the purpose of ensuring that there are no missing Volumes, and to confirm any pending incoming movements.
Synchronization	The process of setting the Target location of a Volume based upon a the value of a field, or combination of fields in an external backup product.
Target Location	The location that a tape should ultimately/ideally be found in.
Volume	An individual asset that is tracked within the TapeTrack software, examples include LTO cartridge, CD, DVD, hard drive etc.

An example sentence using TapeTrack Jargon:

> When I came in this morning, Volume 000001L5 had a current location of the SL8500 Library, but then the Synchronization task ran against TSM, and updated the target location (putting the tape into a Move Status from the SL8500 to Iron Mountain). Later that day, when the Reconciliation task ran, we noticed that the tape was not yet confirmed at Iron Mountain, and as a result had been marked as Overdue. We contacted Iron Mountain and confirmed that the tape has arrived but had not been scanned into SecureSync. We later re-ran the reconciliation and the tape was confirmed as being at Iron Mountain.

What are the TapeTrack Software Components?

TapeTrack Software falls into the following categories:

- TapeTrack Framework Server.
- TapeTrack Windows Clients.
- TapeTrack Command Line Clients.
- TapeTrack Web Services.
- TapeTrack Mobile Software.
- TapeTrack Extensions.

What are the TapeTrack Subsystems?

While TapeTrack is designed around the 5 Pillars of Tape Management, it is comprised of many interconnecting sub-systems. These subsystems work together to automate the process of tape management.

These sub-systems are:

- Alerting.
- Barcode Management.
- Certification.
- Consignment Control.
- Catalog Management.
- Disaster Recovery.
- Reporting.
- Simple Management.
- Slot Management.
- Stock Control.

What are the TapeTrack Objects

- Customer.
- Media Type.
- Volume.
- Repository.
- Data Cluster.
- Simple Management Rule.
- User.

How often are new versions of TapeTrack Released?

TapeTrack software is released quarterly, and the version numbers reflect these releases:

- Q1 Major Release is released in January of each year.
- Q2 Minor Release is released in April of each year.
- Q3 Minor Release is released in July of each year.
- Q4 Minor Release is released in October of each year.

We recommend that users upgrade at least once per year to the Major release and that no user becomes more than 2 years behind the current release.

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