

# How Deleted Messages Can Solve Your Investigation

Through the Lens of the Oxford High School, MI Mass Shooting Case

## Seized Devices in the Investigation

3 

mobile devices  
from parents

1 

mobile device  
from shooter  
(minor)

3 

computers  
(1 for work  
+ 2 laptops)

3 

burner phones  
(with original  
phone's data)

## DID YOU KNOW?

The average smartphone user has hundreds of thousands of text messages stored on their device.



After seizing their phones, the team initially found nothing. But I insisted we dig deeper—what we didn't see was as important as what we did.



- Karen McDonald,  
Oakland County Prosecutor

## Prosecution Challenges



Identifying key evidence  
from vast data



Building accurate  
event timelines



Working with limited  
personnel resources



Gathering evidence under  
tight deadlines to present  
in court

# What Happens When a Message is Deleted?

All crucial communications were deleted from the phones.

## Cell Phone OS Behavior

1

**MESSAGE  
DATA**

Existing  
messages

2

**FREE  
SPACE**

Deleted data  
is marked as  
free space

3

**NEW  
DATA**

Free space  
is overwritten  
with new data

- Deleted messages aren't immediately erased; the OS marks the space as free.
- These messages are recoverable until the OS overwrites them with "new" data.
- Recovering messages quickly is crucial before they're lost forever.
- Older operating systems may retain deleted data longer.

## Using Retrieved Messages in Criminal Investigations

Deletion shows that someone made a choice to remove something that used to exist on their device. This could show intentions to cover up data or throw away incriminating evidence.

Jennifer

**We're on the run  
again. Helicopters  
... not sure where  
to I'll message you.**

Dec 2, 7:31 AM



# How Law Enforcement Retrieves Deleted Messages with Cellebrite

## Data Extraction Methods by Forensic Tools



### Physical Extraction

Involves accessing the phone's internal memory directly.



### Logical Extraction

Extracts data through the phone's operating systems.





The team wanted to just focus on preparing witnesses or starting our jury selection. I kept saying, 'hold up, we don't have answers to some pretty big questions about why and what really happened.' We're not going to give up and say, 'well, we'll never know it.' Pathfinder was a way. It allowed us not to give up.

- Karen McDonald,  
Oakland County Prosecutor



## Investigative Analytics: Weaving the Data into a Timeline

Cellebrite Pathfinder pieces together different data points from multiple phones, including existing and deleted text messages, call logs and location data. With the data on a timeline, investigators can visualize the occurrence of events to understand the case narrative and criminal behavior.

Cellebrite Pathfinder was pivotal in the Oakland County Mass Shooting case, helping prosecutors recover and analyze crucial data that led to both parents' convictions who are now serving 10-15 years in prison for involuntary manslaughter.

