Corruption Challenge Week 4 - The Winning Solution

Congratulations to Randolph West who won the corruption challenge this week with the following solution which restored all of the data.

First he restored the database to get started. Note some of his code and comments have been reformatted to better fit in the blog format.

> Restore database. I use KEEP_CDC and KEEP_REPLICATION because of the hints you dropped in your blog.
> The hint is that there is 100% chance of data recovery, so I will look for Change Data Capture tables.

Next he ran CheckDB to see what is wrong with this database.

CheckDB returned 17,515 lines of errors.

Ouch, lots of errors. But there's one object ID that keeps showing up: 2105058535

dbo.Customers seems to be the problem. Let's cheat a little and look for a CDC table using this name

dbo_Customers_CT ... 373576369 ... 2015-05-01 08:19:32.570 ... 2015-05-01 15:24:30.177
This looks promising. Let's get the CDC output for net changes on this table, and dump them into a temp table.
We get the Start LSN from sys.fn_cdc_get_min_lsn('Customers')

Which inserted 511740 rows into the tempdb.dbo.fff table.

Hmmm ... how many records is that compared to the original corrupt table?

This looks very promising. Now let's query the rows at ID 510900 and 510901

During my playing around earlier, I discovered that the two NC indexes were affected by corruption in page 3:88 as well.

This is a mess - I guess we'll have to turf the entire Customers table
But first we should double-check that the Orders table is ok

[Orders] is good.

Set database in single user mode to enable repair

The corrupt table is dbo.Customer
Run repair of dbo.Customer

Based on the DBCC CheckTable removing all rows from the Customers table, this next section could be skipped.

Now to put everything back into the Customers table.

Turn the triggers back on

Not for the checks.

And that wraps it up, that is how Randolph West won the Week 4 Database Corruption Challenge.

Related Links:

- Week 4 Building the Corrupt Database
- Week 4 Results
- Week 4 Database Corruption Challenge
- Database Corruption Challenge Scores
- Week 4 Extra Clue
- Is Week 4 Too Diabolical?