Hi Venkat,

Enabling **Query Scale-Out** and using **dedicated replicas** appear to be the best solutions for addressing this issue. Please note that **defragmentation is a part of the refresh process**, meaning it is subject to the same challenges we encounter with refresh operations.

For reference, here is some useful information:  
 [Power BI Refresh, Memory Usage, and Semantic Model Scale-Out](https://word-edit.officeapps.live.com/we/wordeditorframe.aspx?new=1&ui=en-US&rs=en-US&wopisrc=https%3A%2F%2Fmy.microsoftpersonalcontent.com%2Fpersonal%2Fb43ce7fb2c019af2%2F_vti_bin%2Fwopi.ashx%2Ffiles%2F2cc9104a34524f42b47787ce17ed804e&wdnewandopenct=1741885103256&wdorigin=OFFICECOM-WEB.START.NEW&wdprevioussessionsrc=HarmonyWeb&wdprevioussession=3c343dc8-42cb-4f9b-a326-a836b1d7b3a4&wdenableroaming=1&mscc=1&wdodb=1&hid=E3298AA1-C0B7-8000-502D-E73BFDB4F333.0&uih=onedrivecom&wdlcid=en-US&jsapi=1&jsapiver=v2&corrid=2d39c59a-4a6a-02bb-ad8b-848c61b46325&usid=2d39c59a-4a6a-02bb-ad8b-848c61b46325&newsession=1&sftc=1&uihit=docaspx&muv=1&cac=1&sams=1&sfp=1&sdp=1&hch=1&hwfh=1&dchat=1&sc=%7B%22pmo%22%3A%22https%3A%2F%2Fonedrive.live.com%22%2C%22pmshare%22%3Atrue%7D&ctp=LeastProtected&rct=Normal&wdhostclicktime=1741885104678&csc=1&wdredirectionreason=Unified_SingleFlush#)

As discussed today, in addition, we need to establish a structured approach for defragmentation that includes the following:

### **1. Schedule Defragmentation at End of Day (EOD)**

* Running defragmentation **after business hours** instead of at the beginning of the day helps avoid delays in data processing.
* This also allows sufficient time for remediation in case of failures or performance issues.

### **2. Implement Defragmentation in Smaller Batches**

* Instead of executing a full model defragmentation in one go, process it in **smaller batches**.
* **Example:** Run defrag on a subset of partitions (e.g., 30 at a time) to reduce memory pressure.
* Consider a **staggered approach**, either through multiple iterations or by scheduling defrag operations for different subsets on different days of the week.

Let’s set up an internal discussion to review this approach before finalizing next steps.

Best regards,  
 **Julio Diaz**