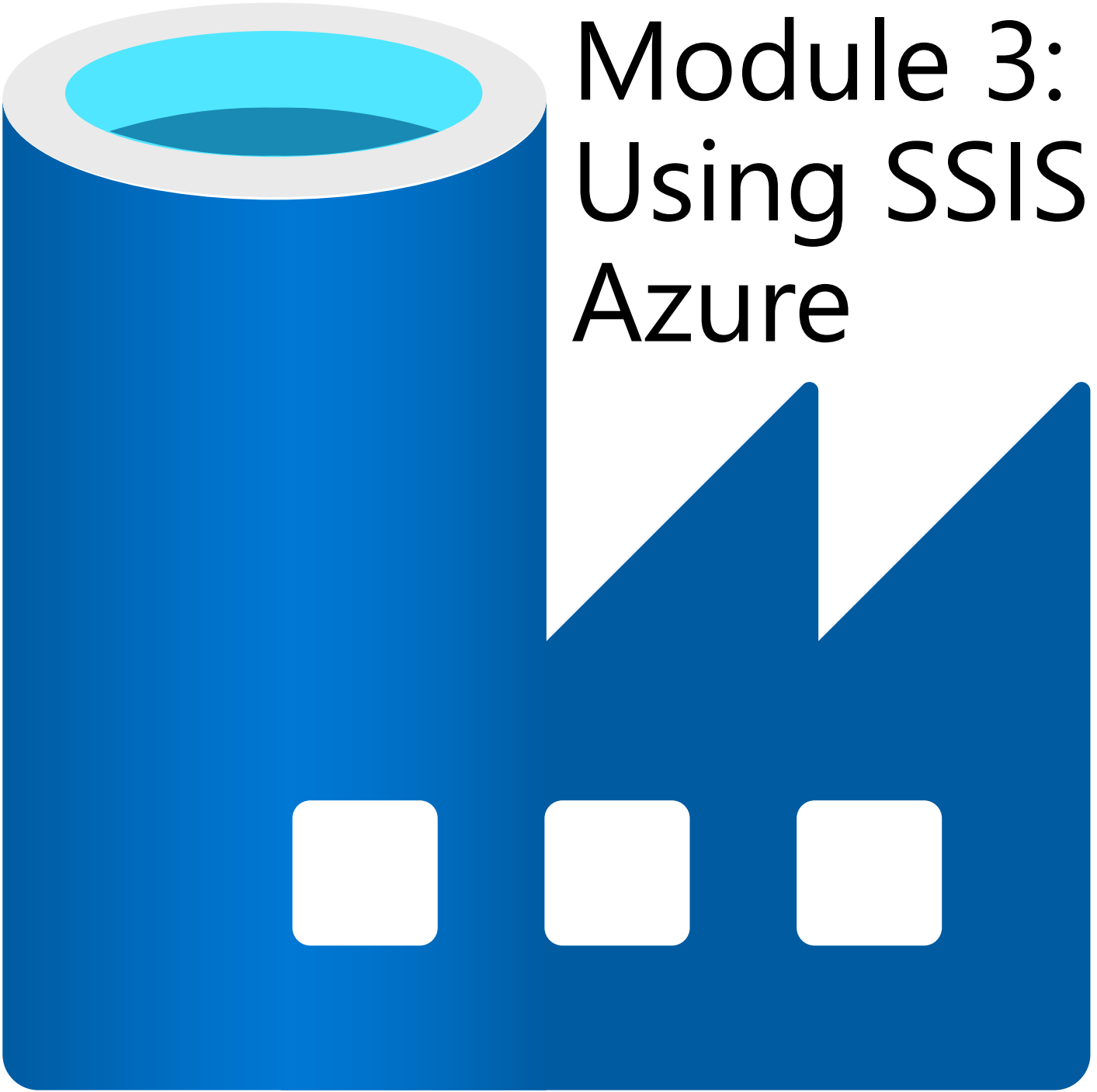
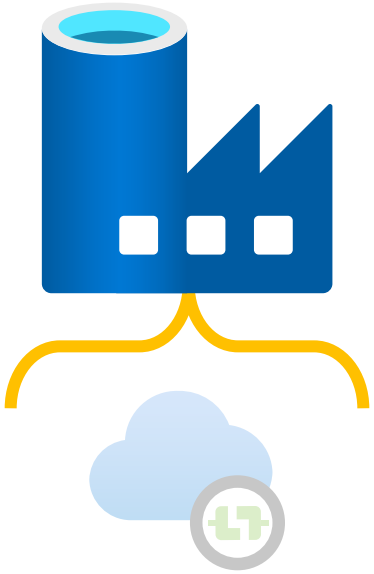
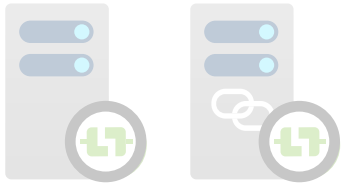


Module 3: Using SSIS Packages in Azure

- SSIS Integration Runtime
- Packages Running on PaaS
- Scaling Out Package Execution



Azure IR



Hosted IR

SSIS IR

Running an SSIS Package in Azure

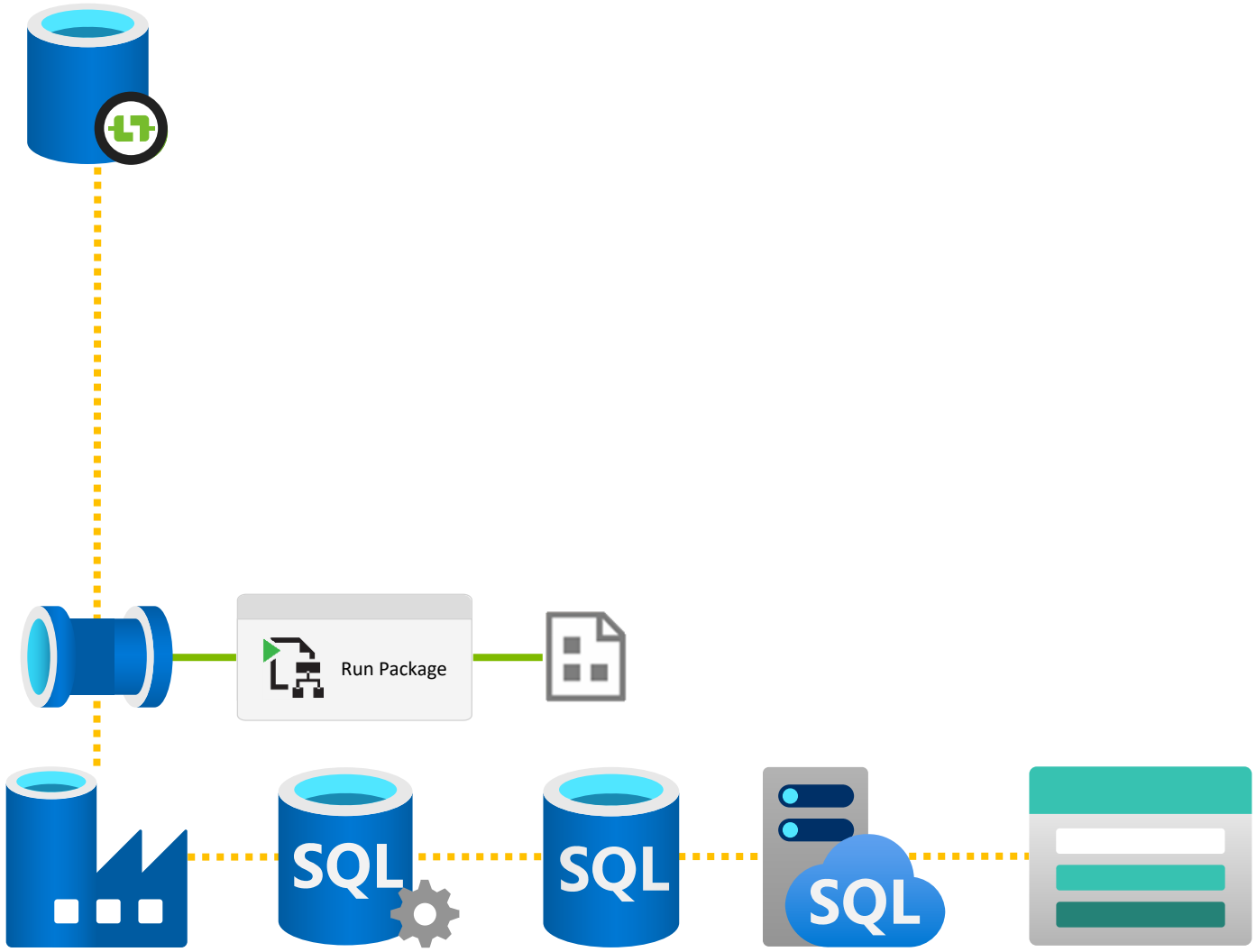
SSIS IR

Running an SSIS Package in Azure

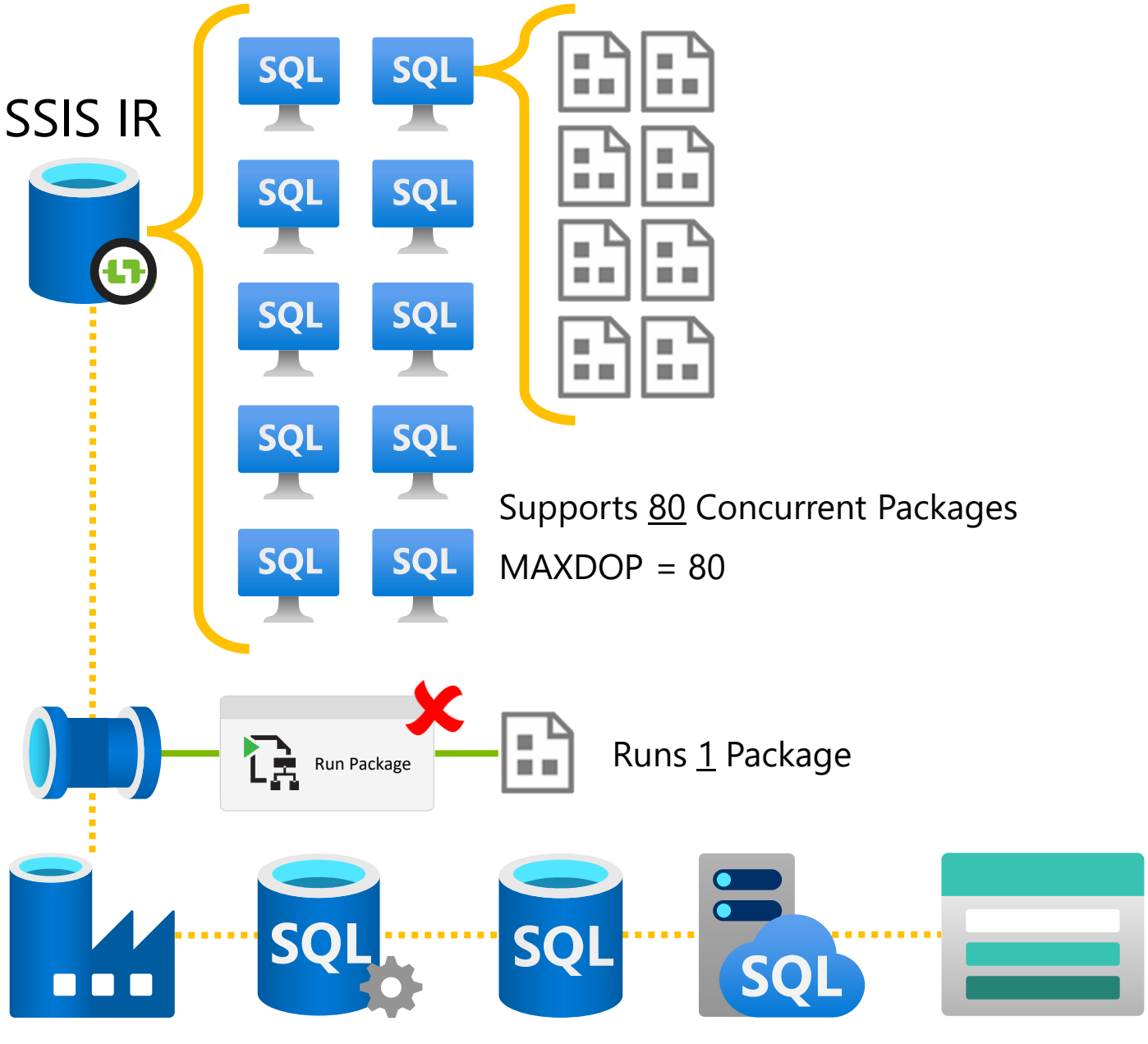
SSIS IR

Running an SSIS Package in Azure

SSIS IR

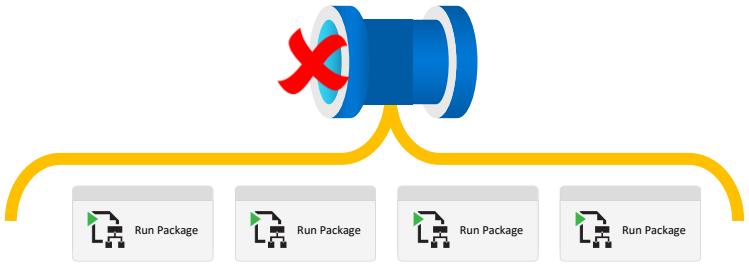


Problem: Using All Of The SSIS IR Compute



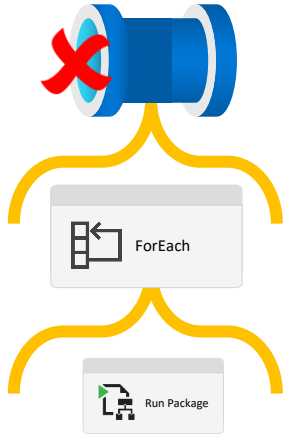
Parent Package

Child Packages x80



Pipeline x1

Activities x80

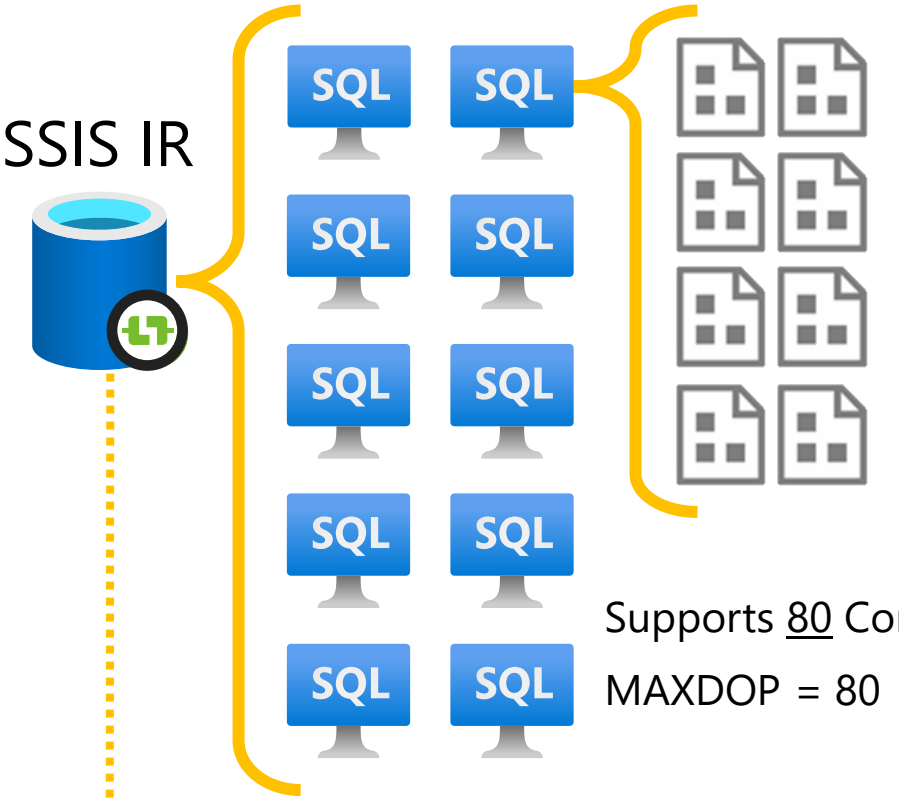


Pipeline x1

ForEach
Max Batch
(50)

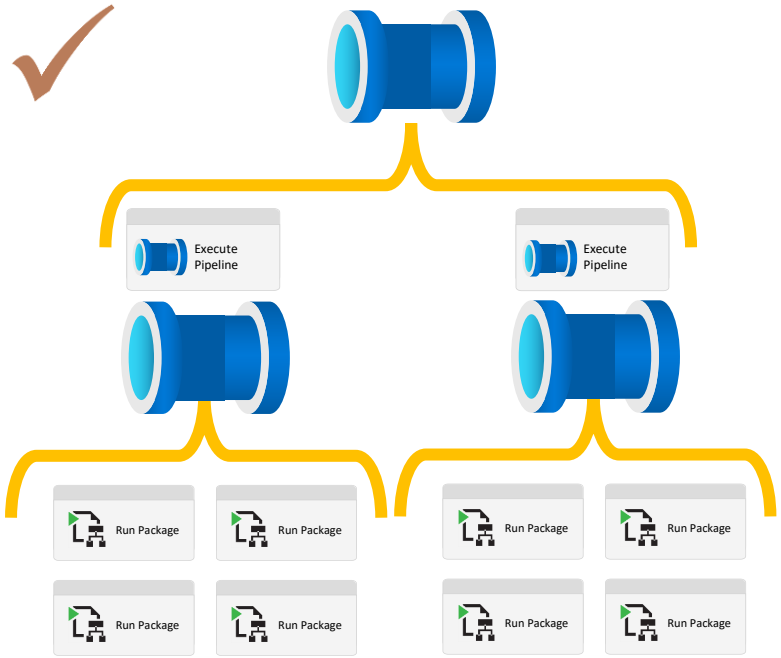
Solution 1 & 2: Static Pipelines

SSIS IR



Supports 80 Concurrent Packages

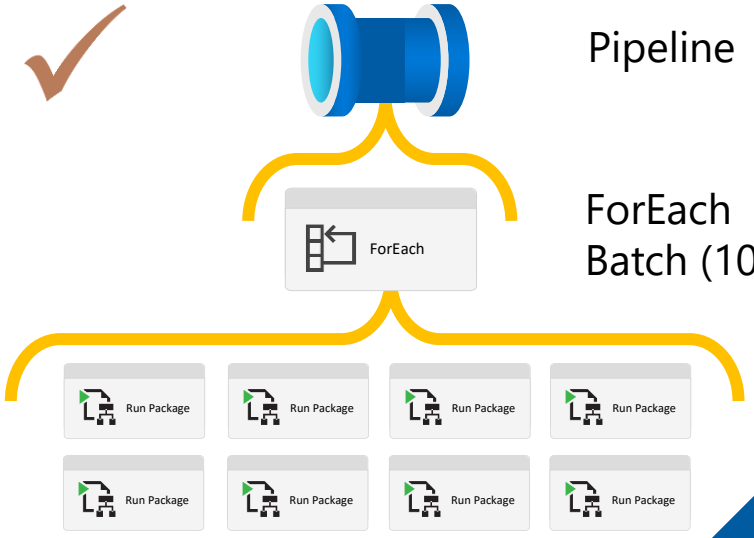
MAXDOP = 80



Parent Pipeline

Child Pipelines x2

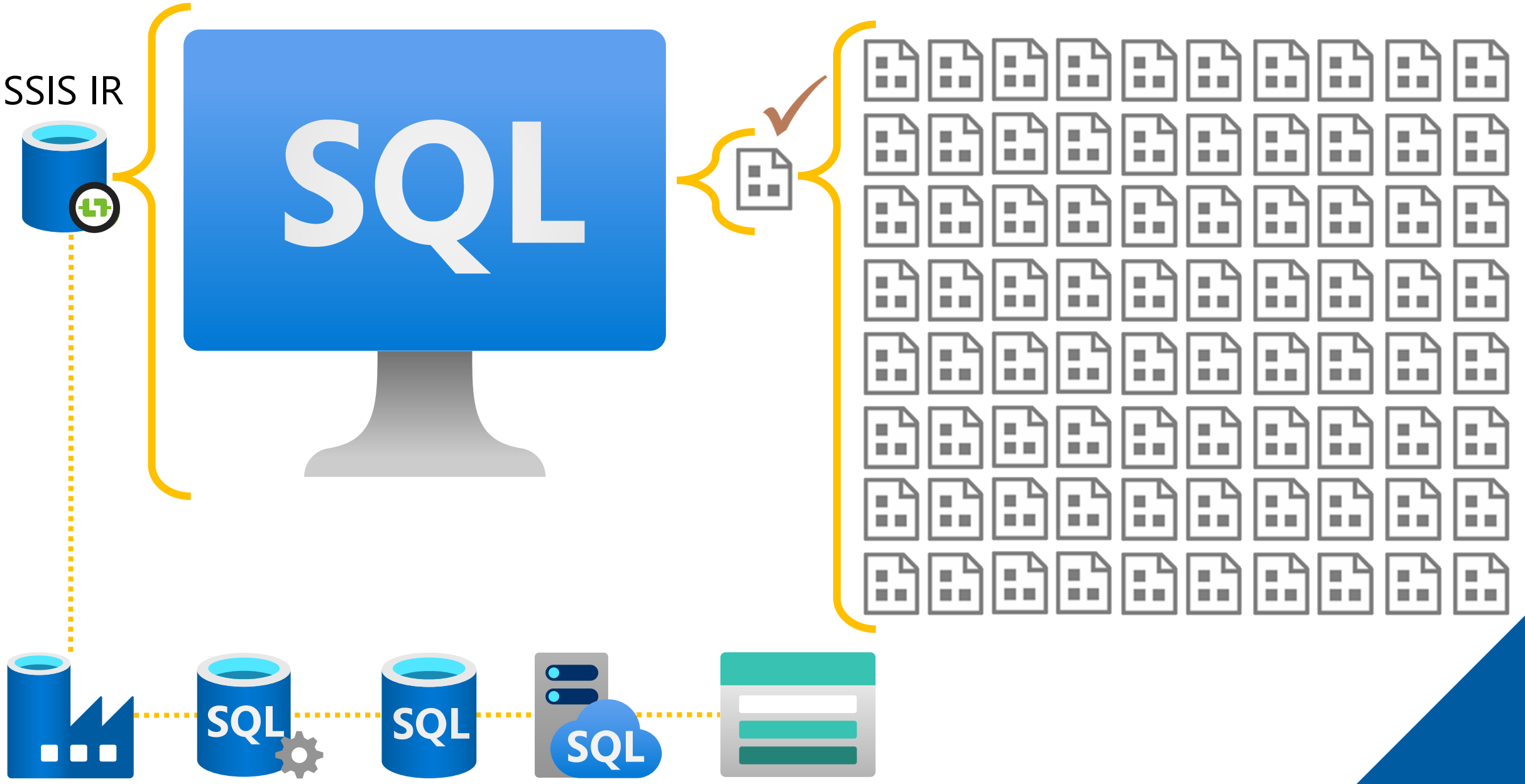
Activities x40 per Child



Pipeline

ForEach Batch (10)

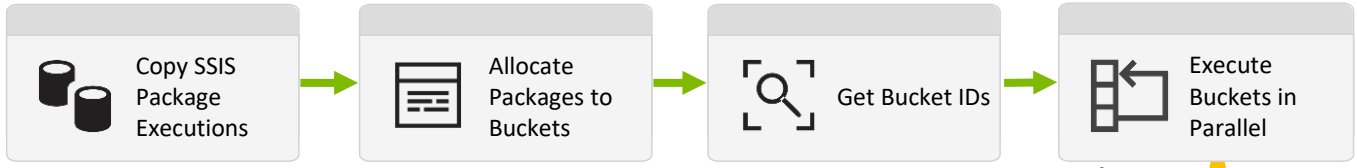
Solution 3: Packages Refactored on a Single Node IR



Solution 4: Nested ForEach Activities & Bucket Metadata

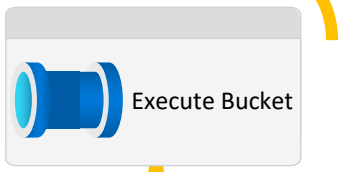
(FE L1) x (FE L2) = NEW MAXDOP
50 x 50 = 2500

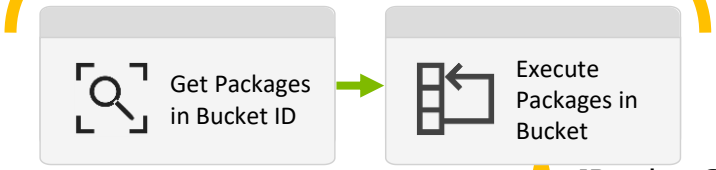
SSIS IR



FE L1
MAXDOP 50

[Buckets]

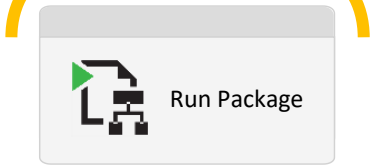




FE L2
MAXDOP 50

@item().BucketId

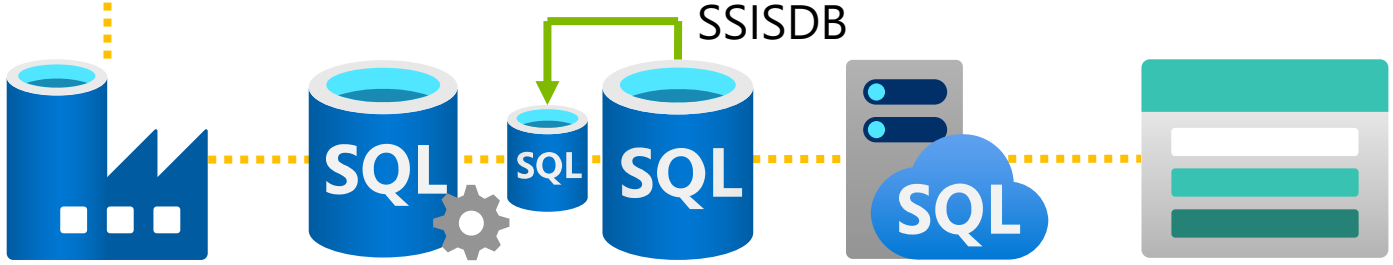
[BucketContents]



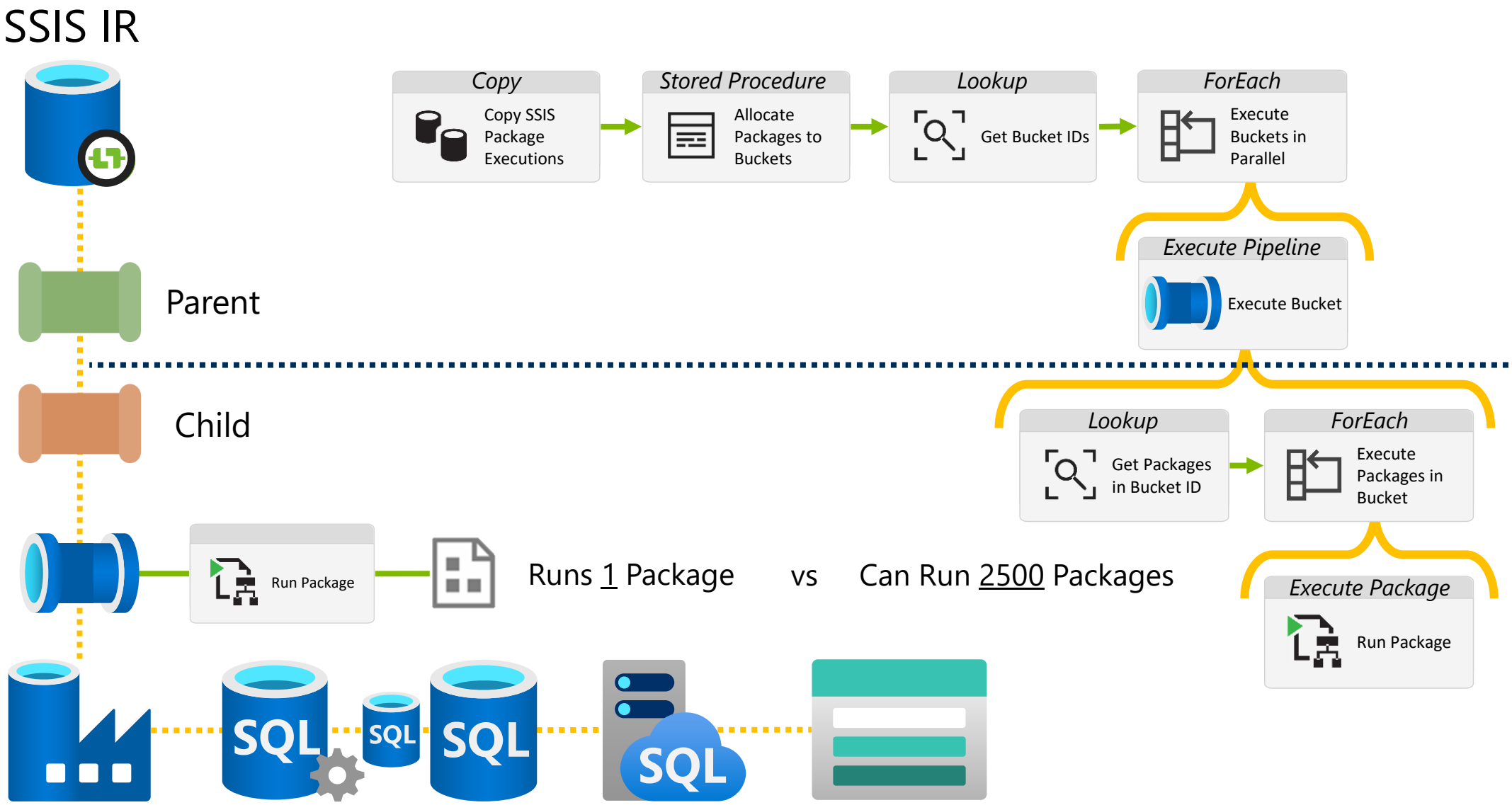
Compute size	S4	S6	S7	S9	S12
Max DTUs	200	400	800	1600	3000
Included storage (GB) [1]	250	250	250	250	250
Max storage (GB)	1024	1024	1024	1024	1024
Max in-memory OLTP storage (GB)	N/A	N/A	N/A	N/A	N/A
Max concurrent workers (requests)	400	800	1600	3200	6000
Max concurrent sessions	4800	9600	19200	30000	30000

https://docs.microsoft.com/en-us/azure/azure-sql/database/resource-limits-dtu-single-databases

SSISDB



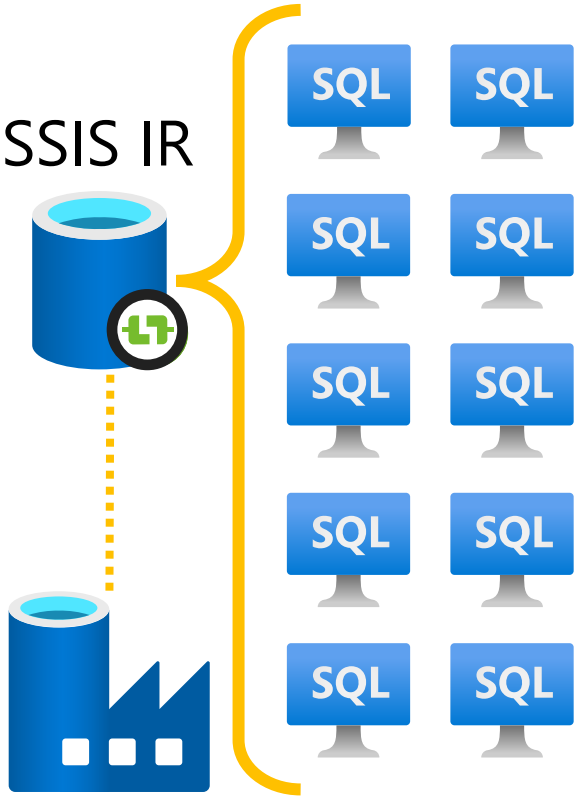
Solution 4: Nested ForEach Activities & Bucket Metadata



DEMO

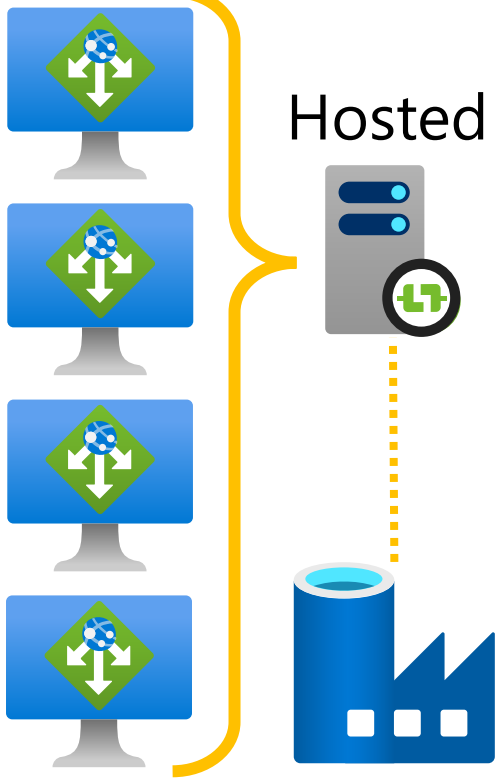
Using the SSIS IR vs the Hosted IR

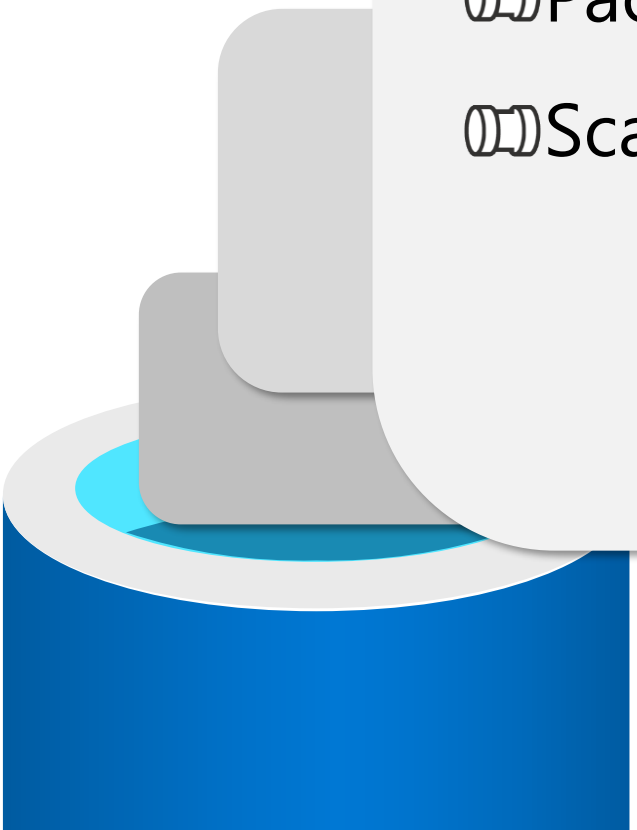
SSIS IR



10 Nodes vs 4 Nodes

Hosted IR



Module 3:
Using SSIS Packages in Azure

- SSIS Integration Runtime ✓
- Packages Running on PaaS ✓
- Scaling Out Package Execution ✓