# Understanding High Availability and Data Encryption in Integration Services



Stacia Varga
CONSULTANT - INSTRUCTOR - AUTHOR

@\_StaciaV\_ www.datainspirations.com



#### Overview



Always On Availability Groups

Always Encrypted

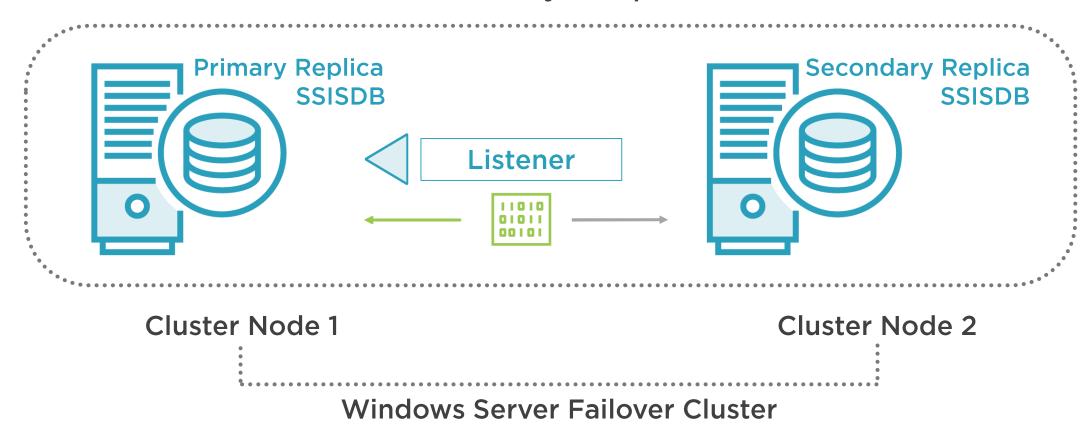


## Always On Availability Groups and SSIS



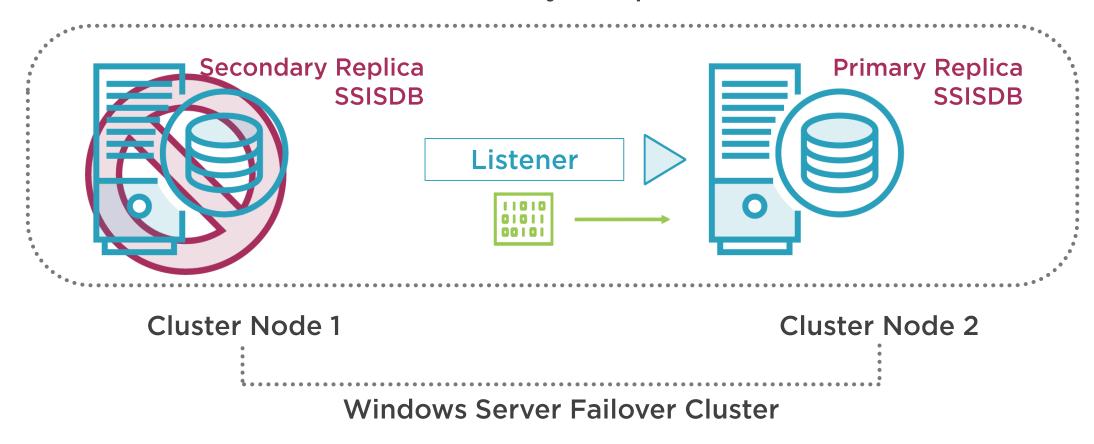


## Always On Availability Groups and SSIS





## Always On Availability Groups and SSIS





### Prerequisites





Cluster Node 1

Windows Server Failover Cluster



## Prerequisites





**Cluster Node 1** 

**Cluster Node 2** 

**Windows Server Failover Cluster** 



### Prerequisites





# Always Encrypted

SQL Server stores encrypted data







# Always Encrypted

SQL Server sends encrypted data



Client requests data



11010

00101

Client decrypts data



#### ADO.NET Connection



#### **Enable Column Encryption Setting**

- Must have Column Master Key (CMK)

#### Parameterize Execute SQL Task

- Required to insert, update or compare encrypted columns

#### **Data Flow Task**

- Data visible as plain text with CMK



# Summary



Always On Availability Groups
Always Encrypted

