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**Active-Active for Non-Stop Update**

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## GoldenGate and Oracle

GoldenGate Software, a wholly owned subsidiary of Oracle Corporation, provides best-in-class real-time data integration solutions that help companies gain improved business intelligence across the enterprise, with more-accurate and timely analysis of real-time business performance.



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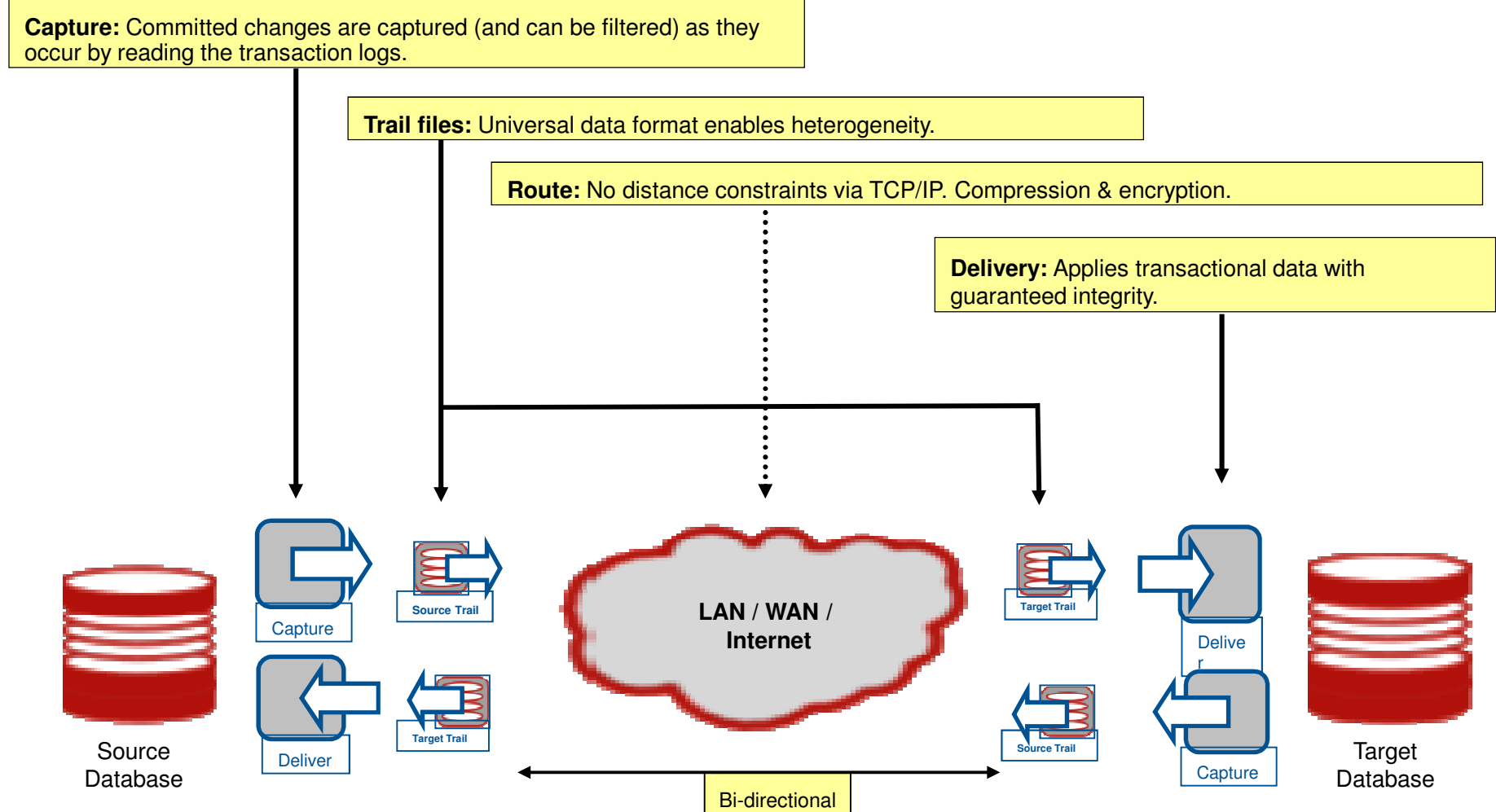
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## Goals of an Active/Active Implementation

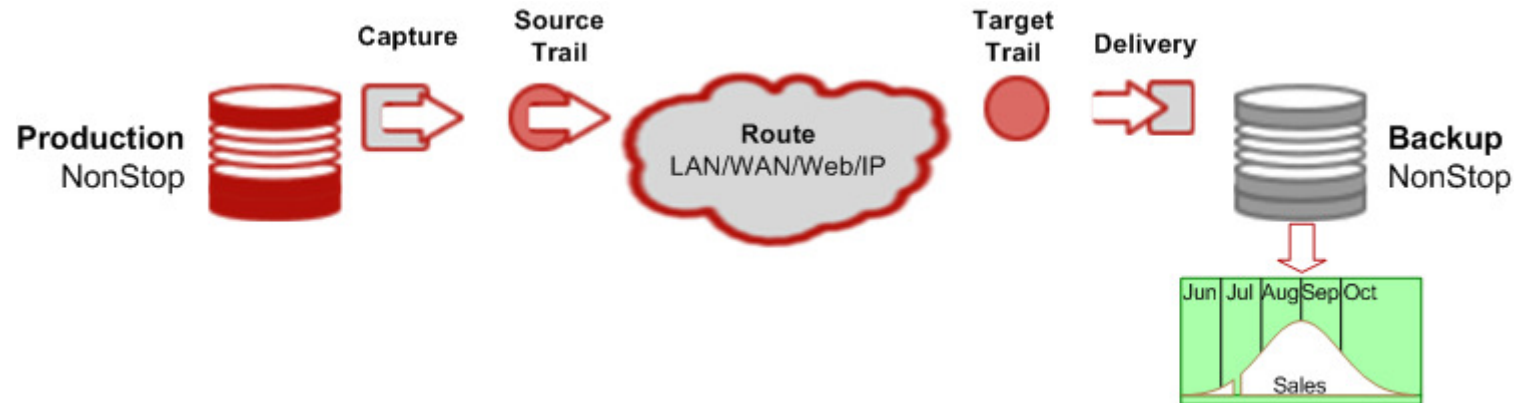
- Better use of existing hardware
  - Put your backup system to use
- Continually test backup system
  - It is working right now
- Reduce response time
  - Handle peaks – each processing a portion of load
  - Maintain your system with planned switchovers
- Allows phased Migrations/Upgrades (no downtime!)
  - Once you have the ability to process on two systems, you can perform phased migrations



# How GoldenGate TDM Works: Modular “Building Blocks”



## Uni-Directional Plus Live Reporting



### When you need:

- Current up-to-the-minute reporting information
- Reduce impact of reporting demands on your production system
- Verification of your failover data readiness

### Under Normal Operating Conditions

#### PRIMARY SYSTEM AVAILABLE for

- BOTH READ and WRITE

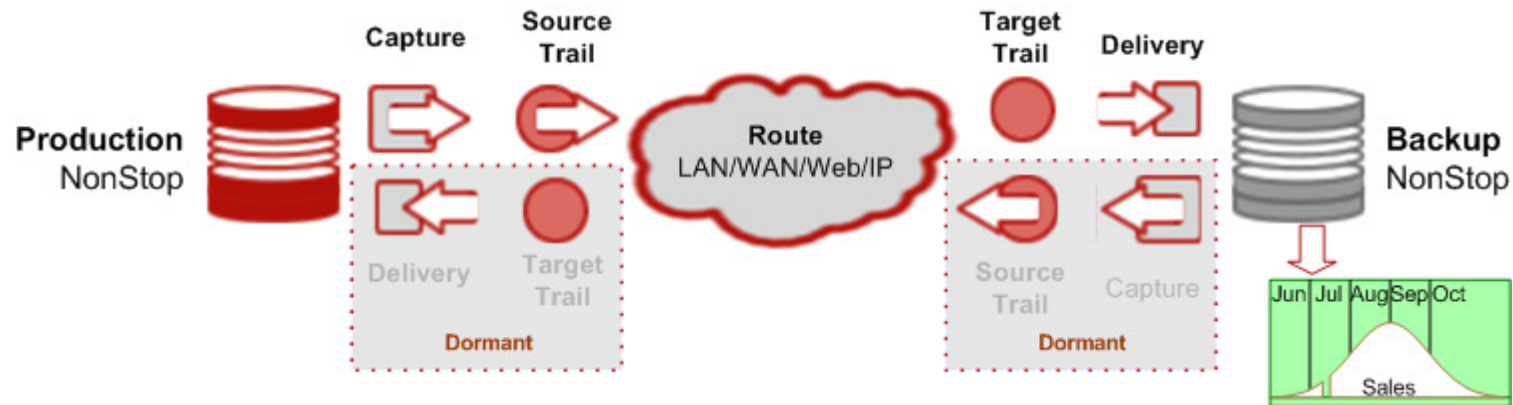
#### SECONDARY SYSTEM AVAILABLE for

- ONLY READ operations

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## Live Standby (Active – Passive)



### When you need:

- Live reporting+
- Fastest possible recovery & switchover
- Reverse direction replication ready
- Next best thing to Active-Active
- Backup that can be used for reporting

### Under Normal Operating Conditions

#### PRIMARY SYSTEM AVAILABLE for

- BOTH READ and WRITE

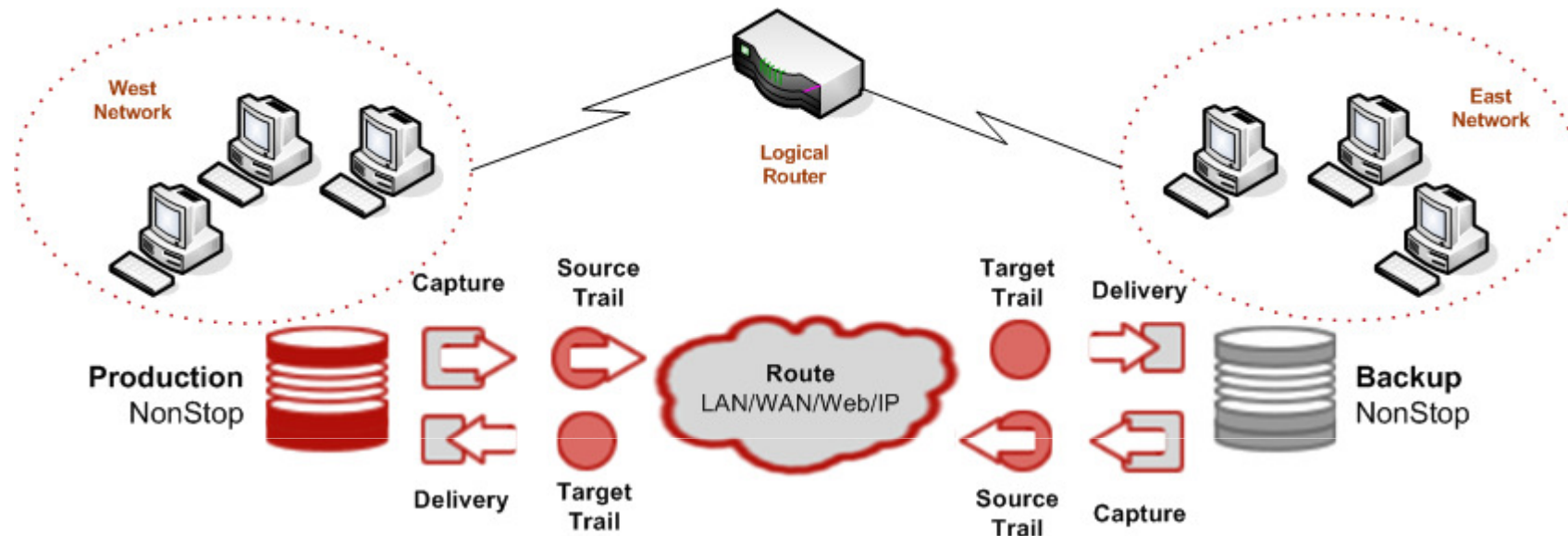
#### SECONDARY SYSTEM AVAILABLE for

- ONLY READ operations

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## Active / Active – Data Routed to Avoid Data Collision



### When you need:

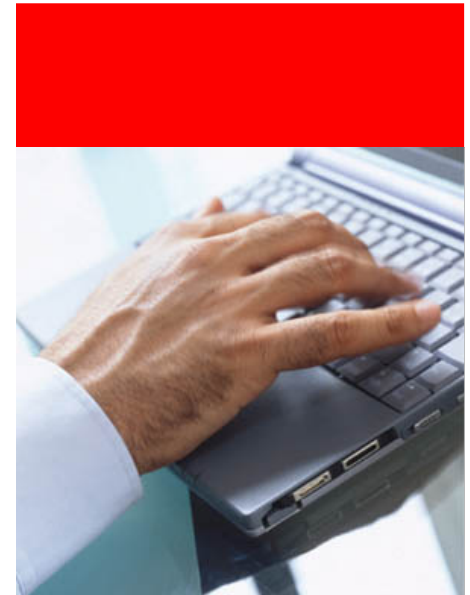
- Continuous availability
- Transaction load distribution
- Performance scalability

### Under Normal Operating Conditions

- Both SYSTEMS AVAILABLE for**
- BOTH READ and WRITE



# GoldenGate v.10 for HP NonStop: New Features







## AUTOSTART Parameter for Manager

- The AUTOSTART parameter can now be used to trigger Manager to start Logger processes
- To accommodate this, the syntax has changed to:

```
AUTOSTART [<group type>] {group name | <process name>}  
          [, ALLPROCESSES]
```

where

<group type> can now include **LOGGER**

<process name> is required for a Logger process in the form \$xxnnnn.

Wildcards can be used for all or part of the name.

- Example – start all Loggers

```
AUTOSTART LOGGER *
```



# STATOPTIONS Parameter for Extract/Replicat

## New reporting parameter:

```
STATOPTIONS [ ZEROSUPPRESS | NOZEROSUPPRESS ]  
            [, PROGSTATS ]
```

### ZEROSUPPRESS

(Default) Do not print zero counts for insert, update and delete operations.

### NOZEROSUPPRESS

Print zero counts for insert, update and delete operations.

### PROGSTATS

(Replicat only) Report time spent creating a file, purging a file or ending a transaction. Default is not to print these.



## Primary Key Updates from Open Systems

- Primary key updates coming from open system databases into a NonStop SQL/MP or Enscribe database are now supported
- They are processed by deleting the target record and inserting a new record with the new primary key
- Primary key updates are still not supported for entry-sequenced and queue files



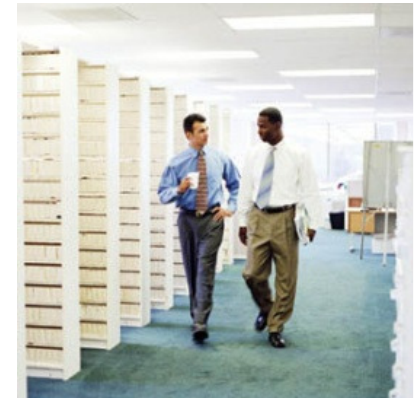
## Changing the default location of AUDCFG

1. To change the default location for the AUDCFG segment, run BUILDMAC or NLDLIB
2. As it builds the new library, the macro prompts:  
Do you want to change to location for the AUDCFG segment for TNS(Y/N)
3. If you enter Y, the program prompts for the \$VOL.SUBVOL location of the file

Note: For multiple GoldenGate environments to have a different AUDCFG locations, each needs a unique copy of GGSLIB linked with the default location for that environment

# Platform Support

- Support for HP Blades





## GoldenGate Version 10 New Features for HP NonStop

- New Parameters
  - ABENDONSECURITYCHECK parameter for Audserv
  - AUTOSTART LOGGER parameter for Manager
  - AUTORESTART parameter for Manager
  - IPINTERFACE parameter for Manager
  - DUP parameter options for Syncfile
  - CHECKPOINTSECS parameter for Replicat
  - FILEAGEDAYS parameter for Extract/Replicat
  - REPORTOPTIONS parameter for Extract/Replicat
  - TALUSEREXIT parameter for Extract/Replicat
- New Commands
  - Hotswap Logger during upgrades
- New Functionality
  - Platform support
  - TAL user exits
  - GET\_USER\_TOKEN\_VALUE user exit function
  - Primary key updates from Open Systems
  - Trail file headers from Open Systems
  - @GETENV for trail file header information
  - Creating high pin processes
  - Changing the default location of AUDCFG

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