IBM z Systems

2015 TPF Users Group
Disaster Recovery and Temporary Data

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IBM

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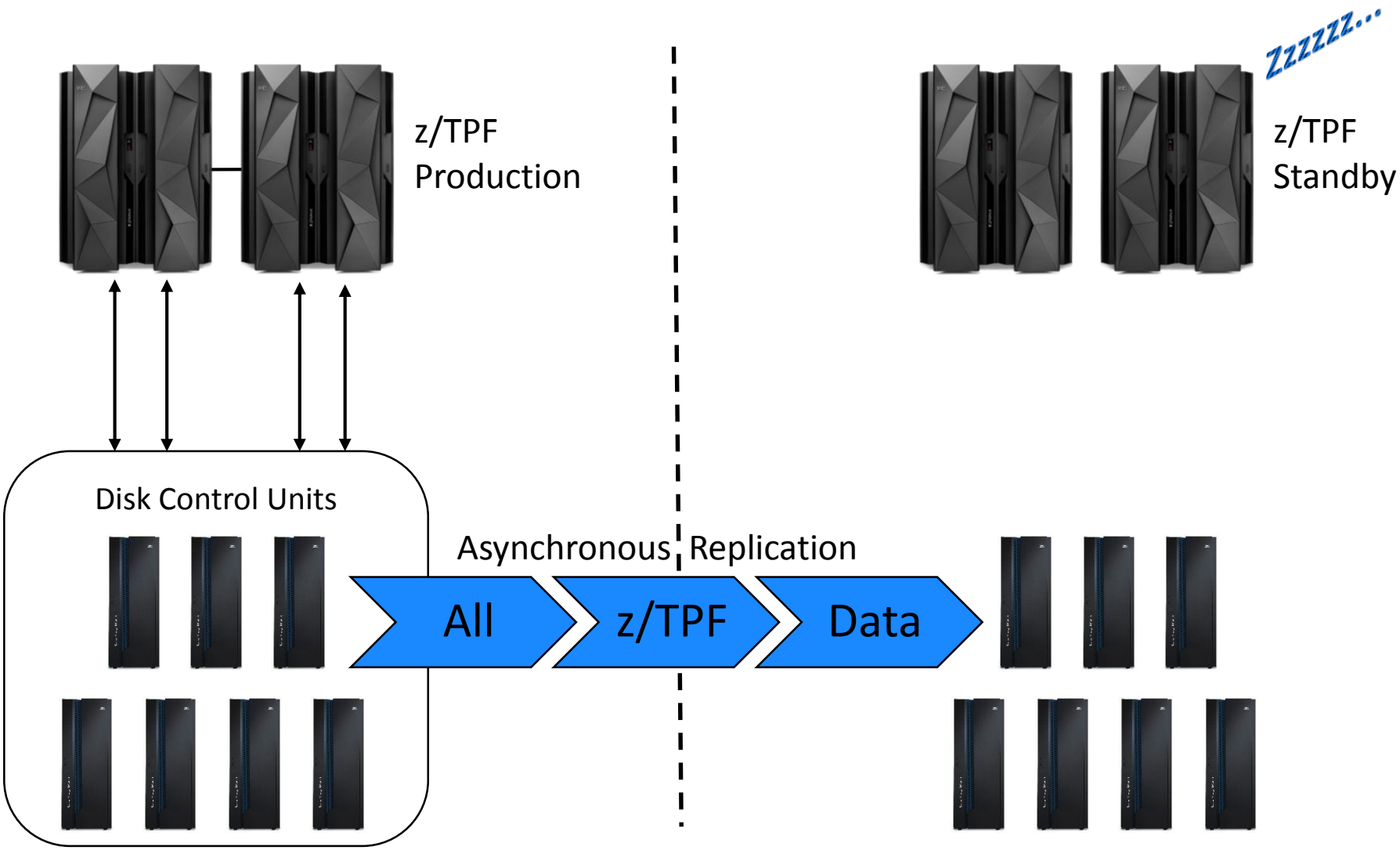
What if I made a HILL out of this?

A IT Provider can reduce disk control unit and inter-site link utilization without changing their z/TPF applications or I/O profile.

Today's Disk Replication to Disaster Recovery Site



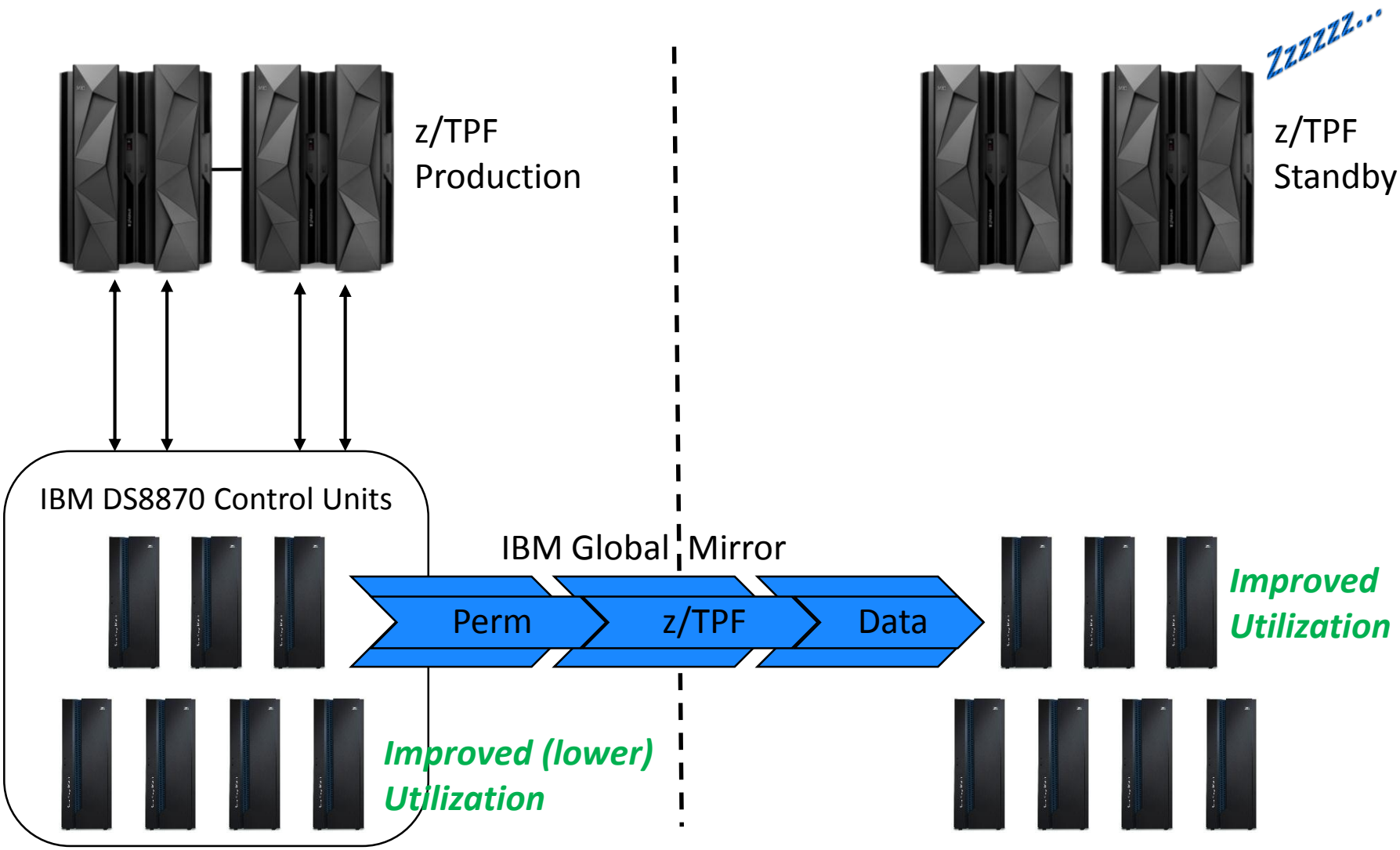
Why are we mirroring temporary data?

- Most disk replication mirrors all changes
  - All write I/O's are mirrored to the secondary volumes
  - Includes data considered to be transient or temporary
    - Certain uses of z/TPF short term pools
    - Session, login, or AAA records
- Secondary volumes used for disaster recovery, creating test systems, etc.
  - Temporary data is always initialized or ignored
- Result: Mirroring temporary data is unnecessary overhead
  - Overhead in links between primary and secondary control units
  - Overhead in primary (send data) and secondary (receive and write data) disk control units

z/TPF and IBM Storage: Skip Mirror Option

- z/TPF
  - New RIAT characteristic: “Skip Mirror”
    - Based on record ID and type of record (fixed or short term pool)
    - Example: Fixed records with record ID ‘AA’
  - Turn on “Skip Mirror” for records that represent temporary data
    - Must be explicitly turned on for desired record IDs / types
- IBM Storage
  - If z/TPF indicates to skip mirror for this write I/O, Global Mirror processing does not send data to secondary control unit
  - IBM Global Mirror sessions only
    - Does not affect other IBM copy services
  - Initial track writes always sent to maintain track formats
- Reduces overhead on IBM storage and inter-site links by not sending temporary data to secondary site

Tomorrow's Disk Replication to Disaster Recovery Site



What will I need to use Skip Mirror?

- Planned availability in May 2015
  - IBM System Storage DS8870 with microcode level R7.5
  - z/TPF APAR PJ42748
- Currently available
  - IBM Global Mirror for disk replication

System z I/O Exerciser

IBM System z I/O Exerciser Tool

- Problem
  - After major upgrades (processor or storage) FICON connections are not found to be faulty until the production work load is run
- Solution
  - Verify quality of the cable connections before running production work
- IBM System z I/O Exerciser
  - New tool made available March 4, 2014
  - Runs in a stand-alone LPAR or z/VM Guest Machine
  - Tests all the FICON devices available to that partition via the IOCDS
  - ***https://www.ibm.com/services/forms/preLogin.do?source=swg-beta-ibmioexzos***

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Notes

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