Performance Analysis & Capacity Planning

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Notes:

Performance is in Internal Throughput Rate (ITR) ratio based on measurements and projections using standard IBM benchmarks in a controlled environment. The actual throughput that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput improvements equivalent to the performance ratios stated here.

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Performance Analysis

- Determines the state of the configuration prior to capacity planning.

Capacity Planning

- Helps you plan for the future with a clear understanding of your true IT capacity requirements.
Capacity Planning Alternatives

Accuracy

Difficulty (Time) & Cost ($)

- ROTs
- Trending
- Analytic Modeling
- Simulation
- Benchmark
Capacity Planning Alternatives

- **Rules of thumb**
  - Based on experiences that currently work in other customers. Also includes tuning.

- **Trending. Published guidelines**
  - Predicts the future if the future looks like the past
  - Can answer overall CP questions

- **Analytic Model**
  - Use formulas. May be linear or may use queing theory
  - High level view of a total system

- **Simulation**
  - Simulate events that occur in a processor or network. Snap Shot

- **Benchmark**
  - Requires that HW be installed, databases be created and programs be running
Analytic Model

- **zCP3000**

- Tool for performance analysis and capacity planning on zSeries and System z

- Requires a data extraction program: **CP2KEXTR**
Data Extraction Program (CP2KEXTR)

CP2KEXTR Flow

VM Monitor

CP2KVMXT

Your Customer

CP2KEXTR

SYSD.EDF

One Per SYSID

Graph

SmartText

HTML text
GIF/JPGs
Cut/Paste

Freelance

WordPro
Net Browser

Disk Magic Analysis

Registration Log file
Error files
More tools:

• zCP3000
• zPCR (z Processor Capacity Reference)
• zTPM (Tivoli Performance Modeler)
• zTDS (Tivoli Decision Support for z/OS)
• BWA (Batch Workload Analysis)
• SnapShot
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