IBM Power Management Discussion

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“Active” Power Management:
- Voltage and Frequency Scaling
- Memory “sleep” or idle
- Other component level idle.
- Fast response time – no loss in availability and serviceability

Inactive power level 1:
- Processor core level “folding”: workload is moved to a single core and all other cores are “inactivated”.
- Response time is one or two seconds.

Inactive power level 2:
- All systems are powered off.
- Service processor and network connection are maintained as active: power levels of 10 to 30 W.
- Recovery time is measured in 10 or more minutes.

Functions of Active Power Management and Inactive Power Management 1 can be combined.

Enables more dynamic data center power level control
- Maximize consolidation to workload on active servers.
- Create a “bench” of inactive power level 1 servers.
- Inactivate remaining servers into a near power off situation.
DEEP INACTIVE STATE: “INACTIVE” POWER LEVEL 2

Recovery Time (seconds)