Core switch CPU 80

Article Overview

A CPU utilization of 80% on a core switch indicates high load, which may be caused by specific processes, network events, or attacks, and requires immediate investigation to prevent performance issues.

Understanding High CPU Utilization

Core switch CPUs handle two main functions: running IOS processes and processing packets from the switching hardware simultaneously. High CPU usage occurs when either IOS processes consume excessive CPU time or the CPU receives too many packets from the hardware, such as during a broadcast storm or network attack . On Cisco switches, normal CPU utilization typically ranges from 5% to 40% for non-stackable switches and slightly higher for stacked switches . Sustained usage above 70% is considered high and may impact network performance.

Common Causes
o High-CPU Processes: Certain processes, like the HTTP CP process on Cisco switches, can consume over 80% of CPU resources, often due to management traffic or misconfigurations .
o Network Events: Spanning-tree reconvergence, routing protocol flaps (BGP, OSPF), EtherChannel instability, or HSRP flapping can increase CPU load .
o Packet Floods or Attacks: ARP, DHCP, or other protocol attacks can generate excessive packets to the CPU, causing high utilization .
o Software-Based Forwarding: When the CPU handles Layer 3 forwarding in software instead of hardware, it can spike CPU usage .

Symptoms of High CPU

o Increased latency or dropped packets
o Failures in DHCP, IEEE 802.1x, or IP SLA responses
o Flapping of EtherChannel or HSRP links
o Delayed spanning-tree convergence

Troubleshooting Steps
o Identify High-CPU Processes: Use commands like show processes cpu sort 5sec to pinpoint processes consuming CPU .
o Check for Network Storms or Attacks: Monitor for abnormal ARP, DHCP, or other protocol traffic. On Huawei switches, commands like display cpu-defend statistics can help detect packet floods .
o Review Routing and Spanning-Tree Events: Look for route flaps or topology changes that may trigger CPU spikes .
o Mitigation: If caused by attacks, isolate the source or apply rate-limiting. For process-related spikes,

consider adjusting management traffic or upgrading firmware .
o Temporary Relief: Restarting or resetting the affected module can temporarily reduce CPU load, but root cause analysis is essential .

Preventive Measures

o Maintain updated firmware and patches
o Monitor CPU utilization trends regularly
o Implement storm control and ACLs to limit unnecessary traffic to the CPU
o Optimize network design to reduce protocol overhead and software-based forwarding

High CPU utilization on a core switch is a critical condition that can affect network stability. Prompt identification of the cause and corrective action is essential to maintain optimal network performance.

The CPU Usage (Precise) graph records information that is associated with context switching events. Each row

Hi Linux/UNIX Overlords, Do any of you have a rule of thumb as to how many context switches (per processor core) is Normal on a

The CPU on a switch will be overloaded if the forwarding plane sends packets to the CPU at high speeds or a task consumes CPU

I am using Laptop: Alienware m17 r5 as of late I had noticed that the "CPU Core" and the "CPU Tctl/Tdie" often spikes

Hello All, On one of my core switch the CPU utilization reaches 100%. I found HTTP CP process is taking more then 80% CPU

My CPU"s core 0 has 80-100 utilization at all times. I think it"s "cos programs have high cpu utilization when they never

High CPU usage can significantly affect the performance of your Windows Server system or applications. This article

Are you running any Graphical Use Interfaces (GUI)s to manage or monitor this switch? Here is a troubleshooting high cpu utilization

What is Core Parking Windows? Is it good or bad? Disable or Enable CPU Core parking in Windows 11/10

using Park

This is a step-by-step guide for disabling CPU core parking in Windows 11. In this example, I show you how to identify

While the switch might appear to operate fine at this CPU utilization level, when the switch CPU sustains a 50 percent

The Cisco® Catalyst® 9500 Series switches are the next generation of enterprise-class core and aggregation layer

Conheça o processador Intel Core Série 3. CPUs Intel da geração atual com eficiência de energia

I currently have an i7-8700k CPU and I have noticed that when I am doing non-cpu intensive things, the Core 1 T0

A normal threshold for CPU utilization on a Cisco switch is typically below 60-70% during peak usage. If the CPU

Will a process switch between different cores to increase performance? If the process does jump between cores,

Web: https://www.kremgroup.co.za