System Resource Monitoring Service (SysMonSvc) — Design

Purpose: Continuous, low-overhead monitoring of CPU, RAM, Disk, and Network with alerting and artifact collection.

# Architecture

Collectors (psutil) → Evaluator (rolling windows & thresholds) → Alert Builder → Uploader (REST).

# Key Thresholds (defaults)

- CPU Total: warn >70%/5m, critical >90%/1m

- CPU Per-Process: warn >30%/5m, critical >50%/2m

- RAM: warn >75%, critical >90%; Available warn <1GB, crit <500MB; Pagefile warn >70%, crit >85%

- Disk Free: warn <20% or <10GB; critical <10% or <5GB (C: strict)

- Network: errors/drops > 0 (rate-based)

# Config

See config/global.default.json and config/sysmon.local.json for tunables.

# Deployment

Run as a Windows service via NSSM or as a console for testing.