

Johnathan W. Carroll

IT Infrastructure & AI Systems Leader

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Driving AI-enabled infrastructure transformations that cut costs & boost resilience

Professional Summary

Seasoned technology leader with **20+ years** designing, deploying, and securing enterprise-class infrastructure for government and private-sector organizations. Proven track record leading **\$3M+** data-center refreshes, consolidating **six OEM platforms into three core systems** and integrating cutting-edge AI & security stacks (Docker-based OpenAI WebUI, Ollama, ComfyUI, DarkTrace, Microsoft Sentinel/Defender, etc.). Recently **eliminated 6 legacy racks**, trimmed annual infrastructure OPEX **by \$250K**, and boosted compute & storage performance while **shrinking physical footprint 50%** and delivering **10x security resilience** at the Pascua Yaqui Tribe. Ready to help a forward-thinking Tucson organization scale securely, cost-effectively, and AI-first.

Core Competencies

• **Infrastructure Modernization** • Nutanix AHV (Acropolis), VMware, Hyper-V, Cisco UCS, Pure Storage, NetApp, Dell
• **AI & Machine Learning Engineering** • Local LLM hosting, NVIDIA GPU optimization, FP4/FP8/FP16 tuning, multi-agent
• **Cloud & Hybrid Services** • Microsoft Azure IaaS/PaaS, Office 365, Azure AD, Exchange Online
• **Cybersecurity & SIEM** • Microsoft Defender (Endpoint, Server, Cloud), Microsoft Sentinel, Darktrace, Zero-Trust
• **Automation & DevOps** • Docker & Compose, GitHub Actions, CI/CD, Python, Bash, PowerShell
• **Team Leadership & Project Management** • 7+ years leading cross-functional teams, \$1M+ capex projects, Agile &

Technical Skills

Virtualization & Compute: Nutanix AHV; VMware vSphere; Hyper-V; Proxmox; KVM; Cisco UCS B-Series; Dell PowerEdge
Storage & Backup: Pure Storage FlashArray; NetApp ONTAP; Dell EMC SC; Veeam; Cloudian S3
Networking: Cisco Nexus & Catalyst; HP ProCurve/Aruba; Palo Alto NGFW; VLAN/VXLAN; MPLS; VPN
Security & SIEM: Microsoft Defender (Endpoint, Server, Cloud); Microsoft Sentinel; Darktrace; Carbon Black; Cisco Secure
AI & Data: Ollama; OpenAI WebUI; ComfyUI; Hugging Face; Qdrant; pgvector; CUDA 11.4
Languages & Scripting: Python (asyncio, FastAPI); Bash; PowerShell; YAML/JSON; SQL
Operating Systems: Windows Server 2003-2022; Windows 10/11; Ubuntu 22.04 (WSL2); Rocky Linux

Professional Experience

IT Infrastructure Manager • Pascua Yaqui Tribe Government, Tucson AZ

Aug 2023 • Present

• Directed **nine-person Infrastructure & SecOps team** supporting police, fire, health, HR, and finance departments across
• **Led enterprise-wide infrastructure refresh** consolidating from six OEM platforms and four support vendors down to **three core systems** (Nutanix AHV, Cisco UCS, Pure Storage); cut data-center footprint **by 50%** while boosting compute, storage capacity, and manageability.
• Designed and deployed **Nutanix AHV cluster** replacing legacy Hyper-V nodes, reducing VM failover times 60% and sim
• Implemented **Microsoft Defender** suite across endpoints, servers, and Azure workloads and stood up **Microsoft Sentinel SIEM**, delivering **10x increase in threat-detection resilience** and slashing mean-time-to-detect from hours
• Deployed **Darktrace AI NDR** and Cisco Secure Endpoint, cutting actionable security incidents by 30%.
• Built **an AI research lab** leveraging RTX 4090 GPUs, Dockerized LLM services, and local SearXNG metasearch secure internal AI pilots while maintaining data sovereignty.
• Managed capital & operating budgets; delivered FY-24 roadmap on time and 5% under budget.

Senior System Administrator

Pascua Yaqui Tribe Government, Tucson AZ
Jan 2021 â Aug 2023

- Administered multi-site AHV, Hyper-V & VMware clusters, 250+ virtual servers, and hybrid Office 365 tenant.

- Automated Windows patching and backup verification via SysSence, InTune, MECM, PowerShell & Veeam APIs, cutting maintenance windows 25%.

- Led migration of 100+ TB file shares to **Pure Storage & Cloudian S3** tiered solution for resilient, air-gapped backups.

Security Analyst

Pascua Yaqui Tribe Government, Tucson AZ
Jan 2019 â Jan 2021

- Hardened access control & fire-panel networks; introduced unified event logging that cut incident response time in half.

- Managed Avigilon CCTV, Genetec access control, and Alertus duress systems across 30+ facilities.

IT Director / Sr. System Administrator

TBM Equities LLC | Sahara Apartments, Tucson AZ
Jul 2013 â Jul 2018

- Virtualized legacy servers to Hyper-V, slashing hardware footprint 60% and annual energy use ~\$8K.

- Implemented enterprise BDR with Veeam & off-site replication; achieved 15-minute RPO for critical systems.

- Engineered tenant Wi-Fi & wired networks serving 900+ residents; maintained >99.9% uptime.

Additional Roles

- IT Director** â TechSoft Systems (Consulting for SMBs, network design & break/fix) 2012 â Present

- Technical Engineer** â BestComm Networks (Tier 3 & NOC for Best Western) 2006 â 2012

- Technical Manager** â TheRiver ISP (Managed 52-person team, ran ISP core services) 2004 â 2006

Selected Projects & Contributions

- Project Prometheus** â Created a modular multi-agent workflow framework employing Tree-of-Thought and Chain-of-Thought reasoning; integrated GitHub-hosted YAML indexes, dynamic role loading, and secure developer mode authentication.

- Open-WebUI Contributor** â Added SINGLE_LINE JSON value and interface reliability enhancements; collaborate with 65+ open-source contributors.

- AI Stack in WSL2** â Architected a Docker-based AI stack (n8n, Crawl4AI, Postgres/pgvector, Qdrant, Redis, Caddy) on Windows 11 WSL2; documented deployment for community adoption.

Education & Professional Development

- Computer Programming & Digital Repair Certificates** â Norfolk Technical Vocational Center, VA

- General Diploma** â Norview High School, Norfolk VA

- Coursework, General Studies** â Tidewater Community College, VA Beach VA

- Continuous learning via Coursera, Pluralsight, and vendor bootcamps (Pure Storage, Cisco UCS, Microsoft Azure, Nutanix).

Professional Affiliations

- InfraGard Arizona** â Member

- Open-Source Initiative** â Contributor & Advocate

Community & Leadership

- Mentor junior admins through Tucson IT Pro Guild; deliver quarterly talks on virtualization best practices.

- Active with the **Future Business Leaders of America (FBLA)** alumni network, supporting STEM outreach in local high schools.

References

Available upon request