



NATIONAL NOVEL
INTERNET EXCHANGE

AI is changing IX and served by IX

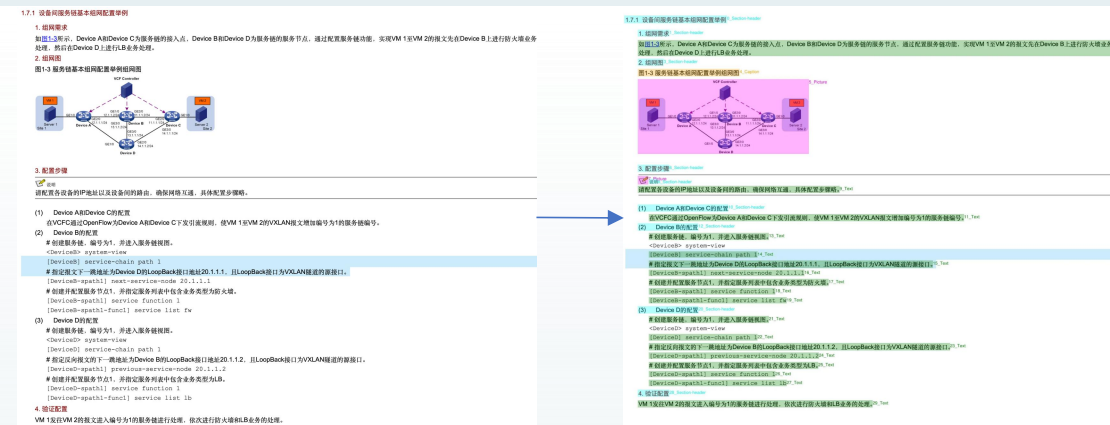
The background of the image is a serene landscape featuring a clear, light blue sky above a calm, deep blue ocean. The horizon line is positioned in the lower third of the frame, separating the textured surface of the water from the smooth expanse of the sky. The text 'Done works' is centered horizontally and vertically, appearing in a clean, white, sans-serif font with a subtle drop shadow that gives it a slight three-dimensional appearance against the background.

Done works

Utilizing comprehensive knowledge sources and operational platform data to deliver instant configuration reference and operational manual Q&A support for network operations engineers

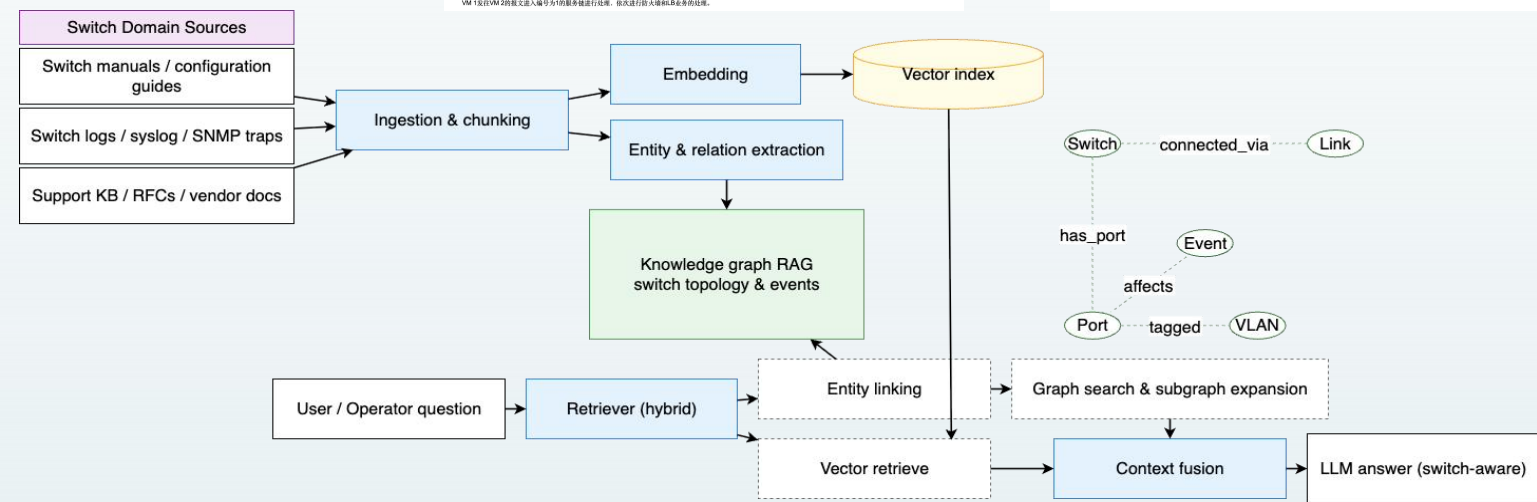
Network Knowledge Base: From Documents to Knowledge

- Document Processing:** Convert Huawei & H3C switch manuals (3,000+ pages) into AI-optimized Markdown format
- Semantic Segmentation:** Create ~100,000 semantic blocks per manual for AI processing
- Knowledge Storage:** Build indexing and storage systems for efficient retrieval



Graph RAG: Multi-concept Linking

- Knowledge Graph:** Process switch data through semantic embedding and entity recognition to build knowledge relationships
- Smart Q&A:** Match question entities with knowledge graph entities to get richer context information
- Performance:** Five to 5-10% improvement over basic RAG for complex reasoning tasks



Networking Knowledge Agent: Network Monitoring

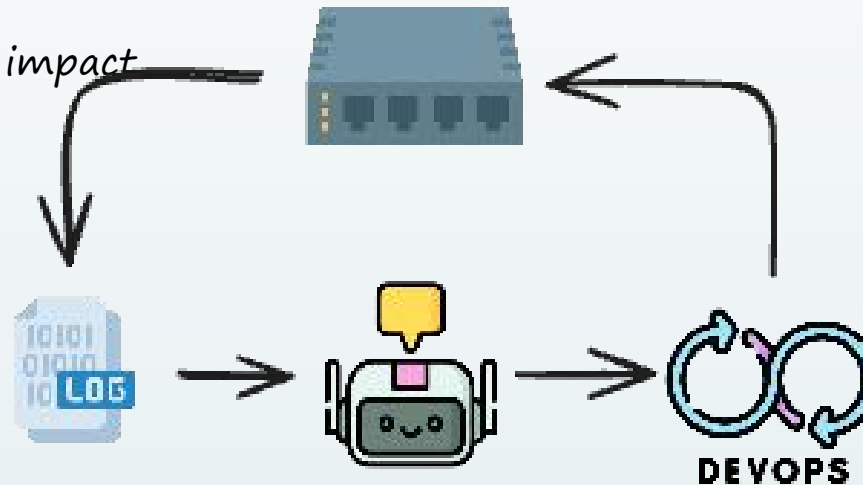
Alerts stored in seconds, located in minutes; device health summarized on one page with early warnings

Networking Log Monitoring

- **Real-time Processing:** Immediate log storage supporting Huawei and H3C formats. Combined rules and models reduce alerts by 10-20 % through deduplication and noise filtering
- **Root Cause Analysis:** Multi-hop reasoning across interfaces, links, and recent changes. Provides possible causes and next verification steps
- **Operations-friendly Response:** Automatic impact summarization

Device Status Monitoring

- **Health Summary:** Track 30-50% device metrics with baseline comparison
- **Trend Prediction:** Thirty-day capacity predictions with early warning system
- **Operations Benefits:** 20-30% time savings with faster problem detection



```
print("\n用户中断, 正在退出...")
ValueError: I/O operation on closed file.

During handling of the above exception, another exception occurred:

Traceback (most recent call last):
  File "/ssd_common/apps/ops-mcp-server/./server_monitor.py", line 44, in <module>
    sys.exit(main())
    ~~~~~
  File "/ssd_common/apps/ops-mcp-server/./server_monitor.py", line 38, in main
    print("清理资源...")
ValueError: I/O operation on closed file.
程序已退出

程序被强制终止
^C(base) root@myapp:/ssd_common/apps/ops-mcp-server# uv run client.py ./server_monitor.py
```

增强型 MCP 客户端

正在连接到 MCP 服务器...2025-08-21 06:42:58,438 - mcp.server.lowlevel.server - INFO - Processing request of type ListToolsRequest

✓ 已成功连接到 MCP 服务器!

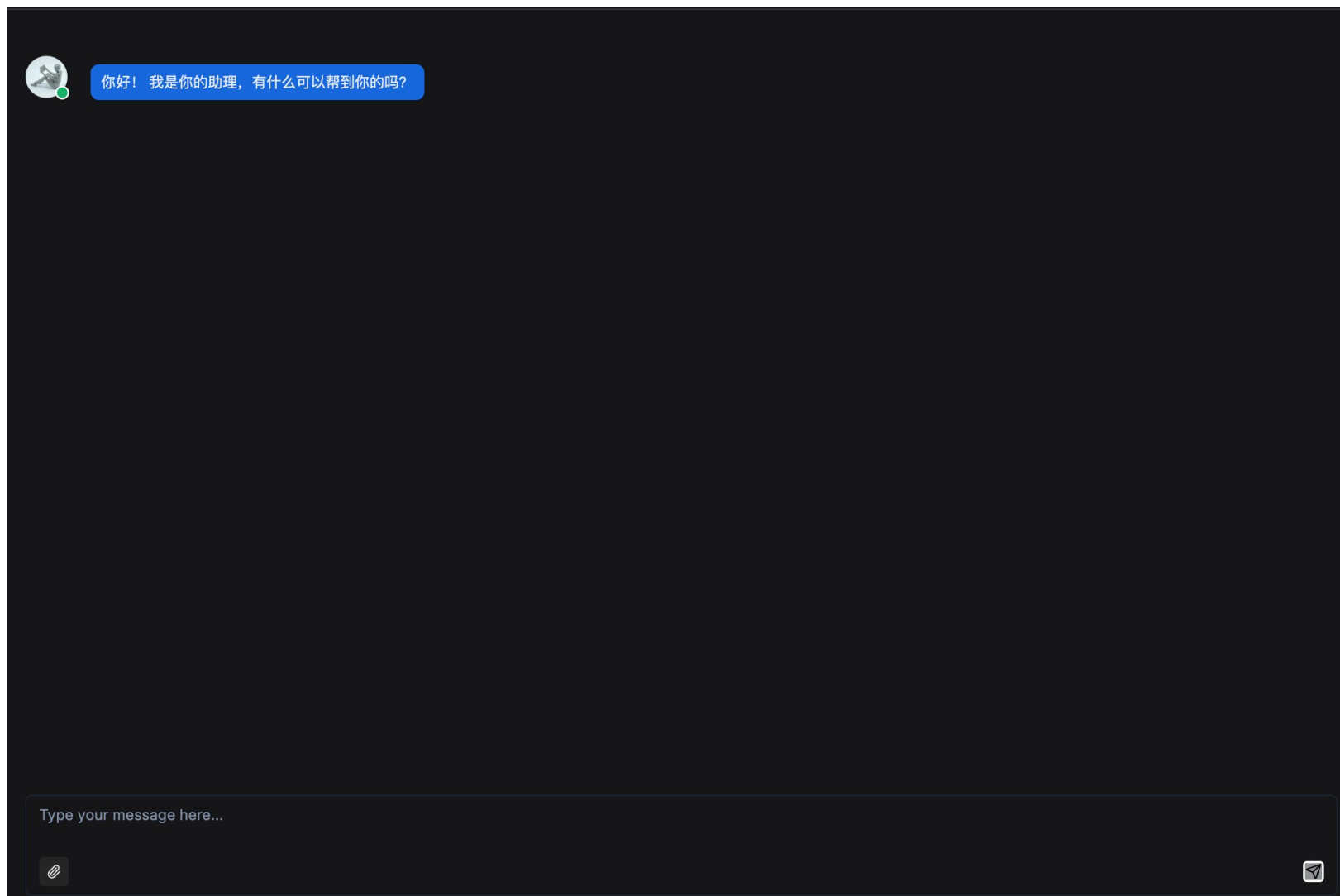
可用工具

工具名称	描述
get_memory_info	获取本地服务器内存信息
remote_server_inspection	执行远程服务器巡检
get_system_load	获取系统负载信息
monitor_processes	监控远程服务器进程, 返回占用资源最多的进程
check_service_status	检查指定服务的运行状态
get_os_details	获取操作系统详细信息
check_ssh_risk_logins	检查SSH登录风险, 包括失败尝试和可疑IP
check_firewall_config	检查防火墙配置和开放端口
security_vulnerability_scan	执行基础安全漏洞扫描
backup_critical_files	备份重要系统配置文件
inspect_network	检查网络接口和连接状态
analyze_logs	分析服务器日志文件中的错误和警告
list_docker_containers	列出Docker容器及其信息
list_docker_images	列出Docker镜像
list_docker_volumes	列出Docker卷
get_container_logs	获取指定容器的日志
monitor_container_stats	监控容器的资源使用情况
check_docker_health	检查Docker服务的健康状态和基本信息
_list_available_tools	无描述

增强型 MCP 客户端 已启动!
输入您的问题, 或输入 **quit** 退出, **help** 获取帮助。

您的问题:

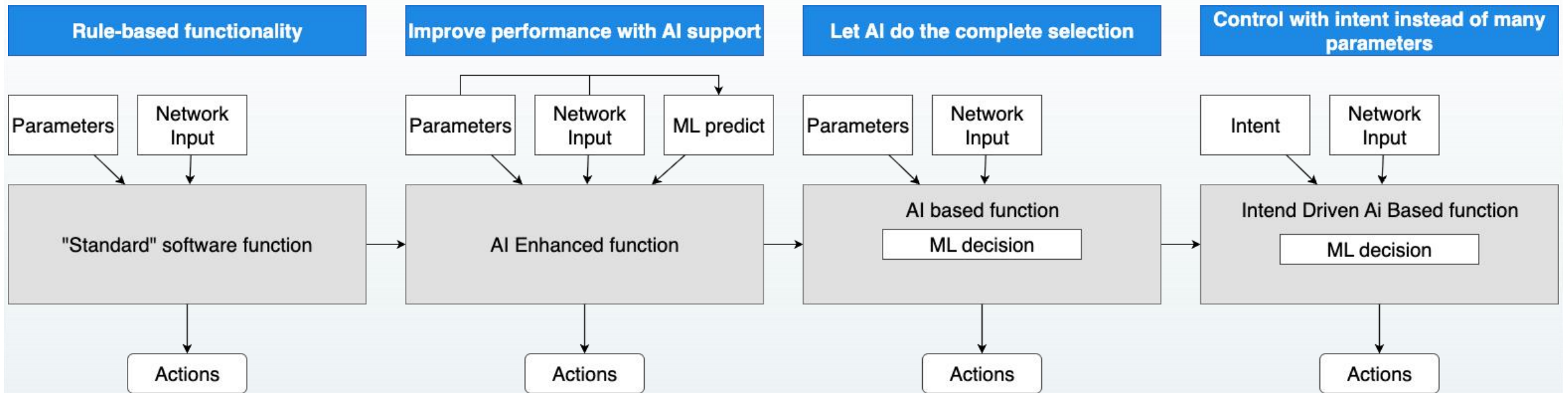
Networking Knowledge Agent: Network Monitoring



Future Plans

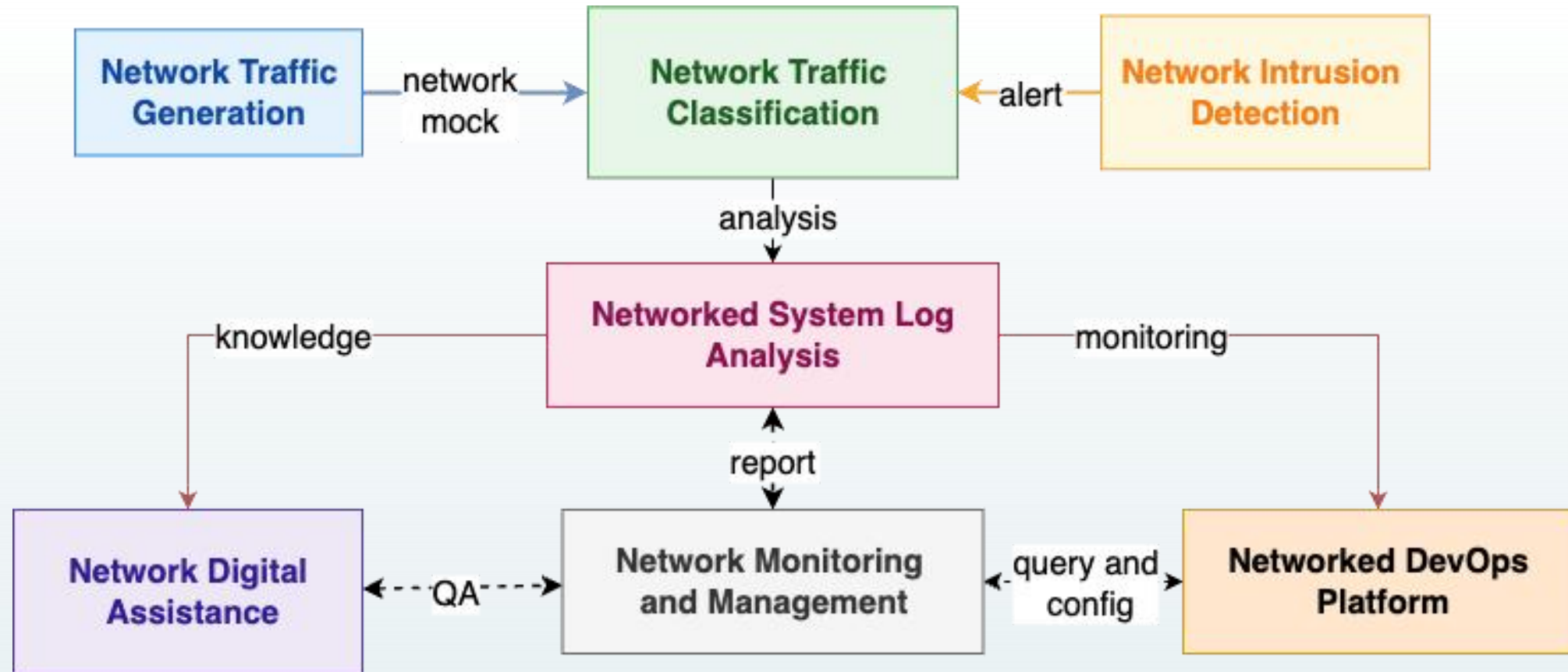
AI for Network: Intelligent Network Traffic Optimization

Network automation is evolving from “humans write rules” to “say the outcome you want.” AI first assists, then decides, and finally orchestrates execution, operating in a sense–predict–optimize loop that reduces manual effort and improves stability and efficiency.



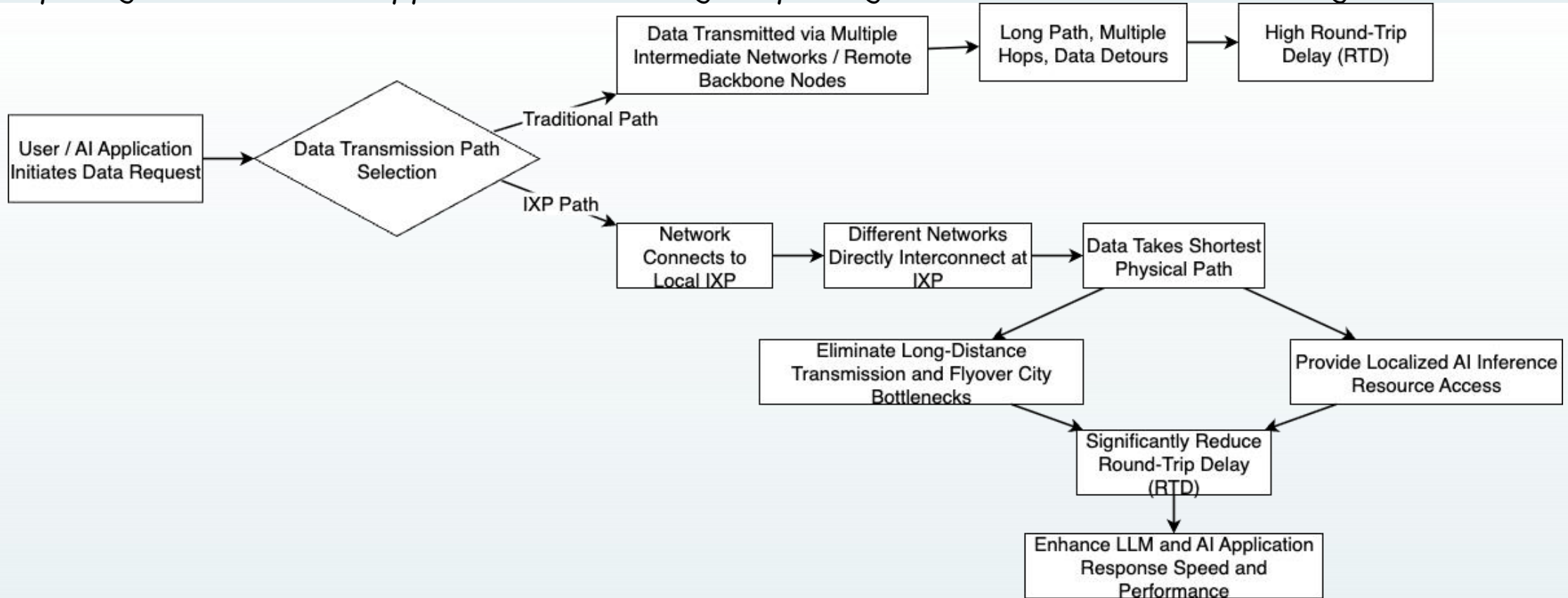
AI for Network: Intelligent Network Monitoring & Management

AI-driven network monitoring and management architecture enables the transition from passive response to proactive prevention, significantly enhancing network operational efficiency, security, and reliability, thereby establishing a solid foundation for building intelligent network infrastructure.



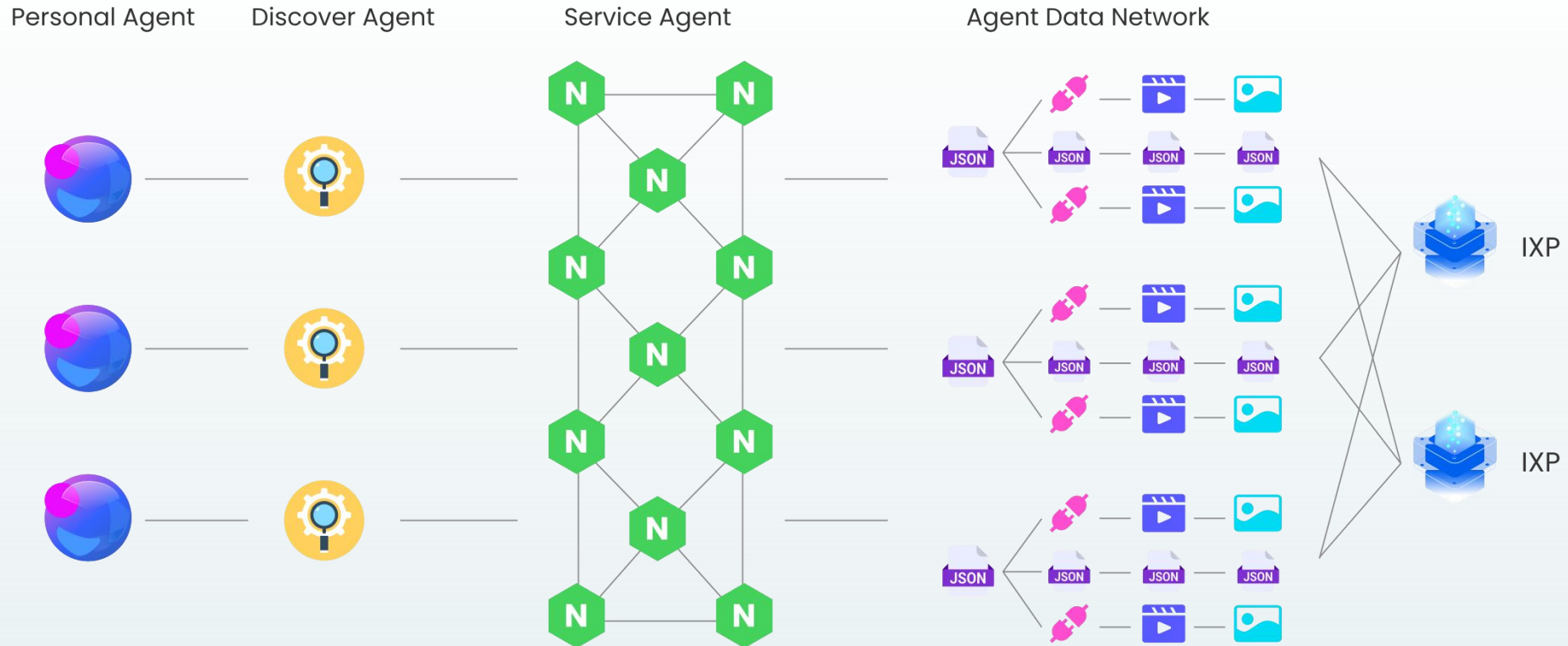
Network for AI: AI as a service inference exchange

Internet Exchange Centers evolve from traditional network infrastructure to intelligent exchange centers by providing shortest data paths and localized AI inference resources, delivering low-latency intelligent computing services for AI applications, achieving deep integration of networks and intelligence.



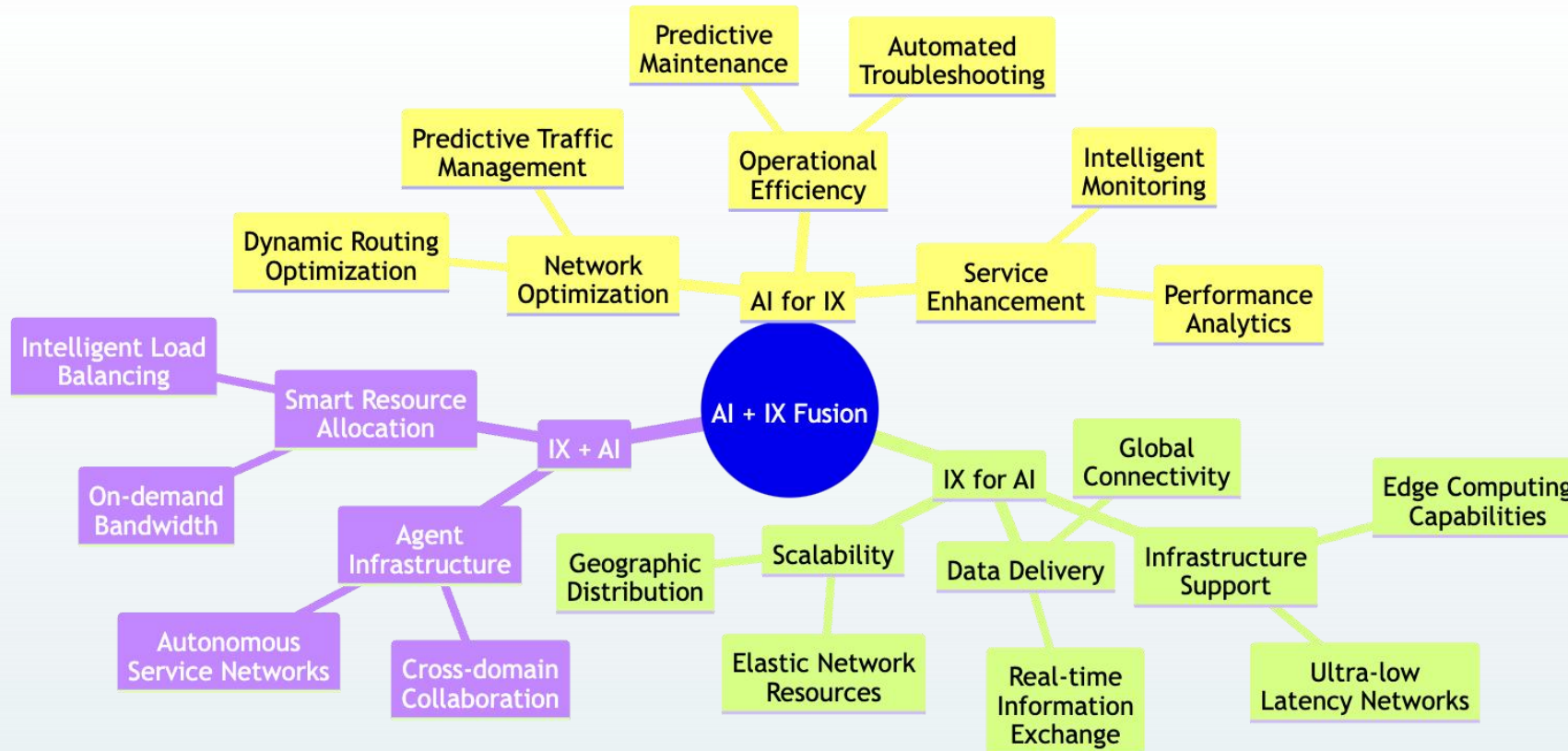
Network for AI: AI Agent Native Network Infrastructure

By providing standardized discovery, connection, and collaboration mechanisms for agents, exchange centers evolve from traditional network exchange nodes to key infrastructure of the agent ecosystem, supporting a truly AI-native interconnected network that enables agents to interact and collaborate freely in the network like humans.



AI + IX Fusion: Building Future Intelligent Network Ecosystem

IX will become the core infrastructure of the future AI Agent Network, supporting a truly AI-native interconnected network that enables agents to interact and collaborate freely in the network like humans.





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THANK YOU