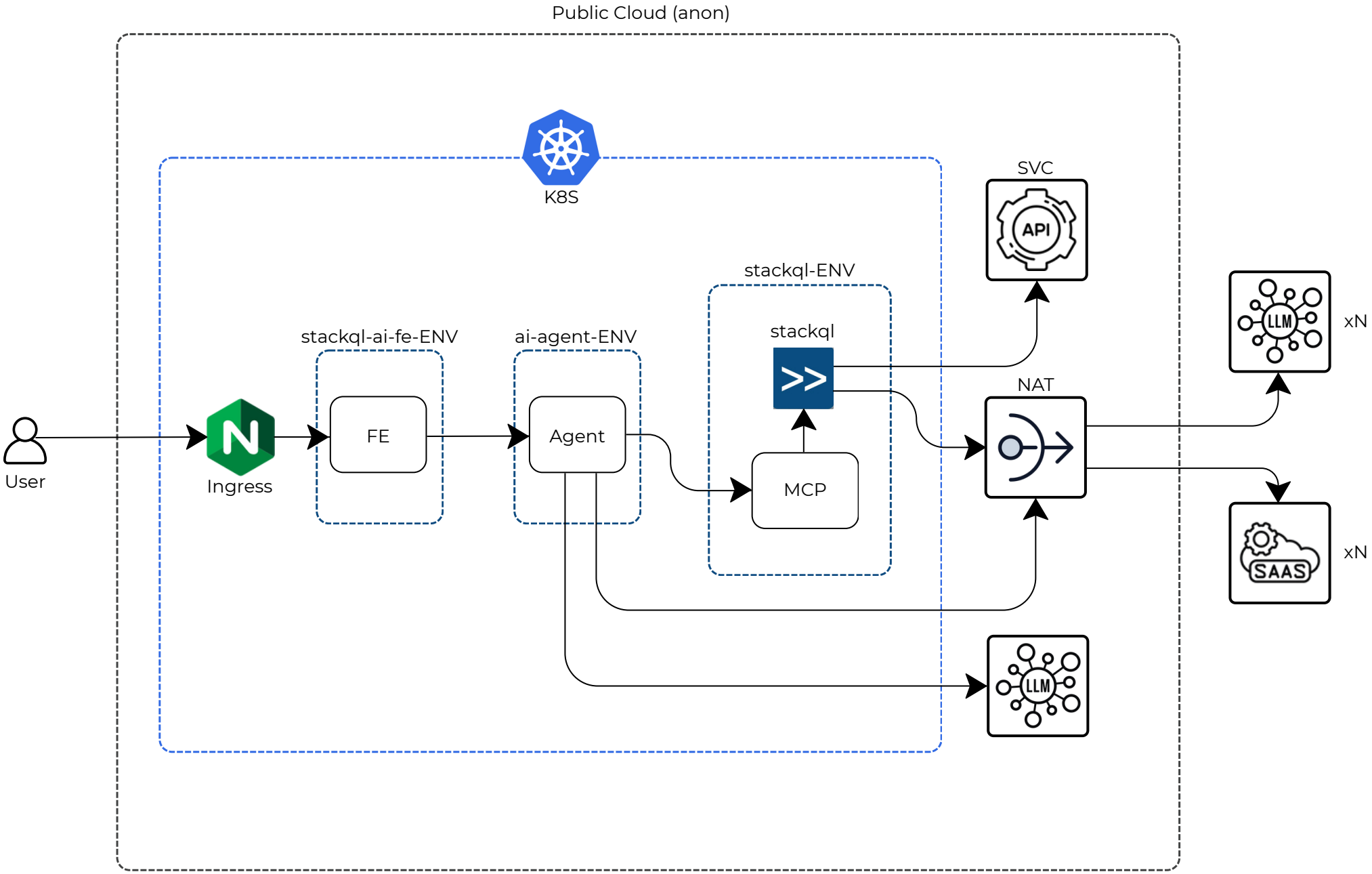
Public Cloud (anon)
K8S
SVC
API
stackql-ENV
stackql
stackql-ai-fe-ENV
ai-agent-ENV
NAT
LLM
xN
User
Ingress
FE
Agent
MCP
SAAS
xN
LLM

Enterprise Operations Manager: Architecture and Workflow

The Cloud Native Operations Manager (Ops Manager) performs observability and intelligence operations against any resources owned by organizations of any size. Operations teams within the organization access the application through Ingress in a Kubernetes (k8s) cluster. Depending on Security posture, there may well be multiple devices protecting this connection. More on security later.

In this Cloud Native pattern, the solution resides in subcomponent-dedicated and environment-isolated namespaces within k8s cluster(s) inside a public cloud tenancy. Ops Manager includes a front end for user interface and query interactions, as well as an AI agent that orchestrates cognition through large language models (LLMs) of choice, incorporating **stackql** query capabilities.

Standard network primitives are used, and devices and configurations can be layered depending on the Enterprise security posture. In a simple setup, there is Kubernetes cluster egress controlled through standard network policy mechanisms, integration with Cloud Native IAM, a service mesh for in-cluster security, and TLS for all transport. Private networking supports queries against services within the hosting cloud, while public internet access can be used to consume external services, such as large language models participating in the cognition loop, and external SAAS of interest for ops teams. **stackql** configurably consumes Enterprise proxies.

These models could be hosted in the public cloud, within a Kubernetes cluster, or on other Enterprise-owned infrastructure, physical or virtual. **stackql** can query services over private networks within the hosting tenancy and configurably access external resources across public internet.