

Out of the box Istio service mesh with Cisco Service Mesh Manager



Functions such as inter-service communication, monitoring, tracing, security, access control, routing and rate limiting are all quintessential for building and running high-scale service based applications in a cloud native environment.

As a solution, organizations often shift towards implementing a service mesh that ideally provides unified logic and management for these functions as a separate layer, decoupled from the application code.

Quite often organizations use Istio, one of the most commonly known open-source service mesh implementation on the market, but end up facing a new set of challenges relatively soon.

Challenges & Solution

In their attempt to implement Istio, organizations have to come to terms with its complex configuration. This is where Cisco Service Mesh Manager (SMM) comes into the picture as a solution.

SMM is a service mesh platform that takes the complexity out of Istio by offering a great user experience all the way from installation and management to observability and diagnostics.

1. Building blocks



One of the main difficulties with Istio is that it is more of a set of building blocks that users are expected to customize themselves, instead of a packaged solution.



SMM comes as a full-fledged, commercially available product incorporating all necessary building blocks such as production ready monitoring and tracing via Prometheus, Jager and Grafana. All combined in an opinionated manner and readily integrated to SMM.

2. Compatibility



Users with the intention to build on Istio's feature set often have a hard time finding the right solution. Most vendor offerings on the market build on top of Istio as an additional layer, essentially further complicating an already complex technology.



SMM is built from the ground up to be fully compatible with Istio without adding a new abstraction layer on top of its configuration. In addition, SMM offers enhanced functionalities such as an SRE toolbox, enhanced Ingress & Egress gateway management, Istio configuration validation, FIPS-compliant encryption and a drill down dashboard for reviewing and auditing.

3. Investment



For organizations lacking the time and resources to train or hire professionals, Istio can end up as being a hefty investment with no guarantee of success in the end.



SMM significantly cuts down on Istio's Total Cost of Ownership and offers instant Return of Investment by providing a swift and simple configuration, deployment and operation for newcomers and professionals alike.

4. Know-how



Istio's configuration and operation for someone unfamiliar with the technology comes off as a lengthy trial and error learning curve.



SMM minimizes the learning curve and provides better user experience via a fully featured CLI tool, an intuitive, easy to use graphical dashboard and versatile modes of operation to fit in with already established workflows.

5. Adoption



Istio's documentation does not necessarily cover all the essential production related use cases, and the fact that there is no available commercial support further complicates adoption.



SMM helps to accelerate Istio adoption by providing an out of the box solution coupled with technical know-how, integration and support services.

About Cisco Service Mesh Manager

Cisco Service Mesh Manager is changing how private clouds are built: simplifying the development, deployment, and scaling of complex applications, and putting the power of Kubernetes in the hands of cloud first Organizations and Enterprises alike.

If you wish to learn more about Cisco Service Mesh Manager, feel free to [contact us](#) and one of our expert team member will get in touch with you, join our [Cloud Native community](#) or [subscribe to our engineering blog](#).