FORTINET | **IBM Cloud**

SOLUTION BRIEF

Automated and Dynamic Security for IBM Cloud

Executive Summary

Fortinet and IBM have partnered to deliver combined security and cloud solutions to help protect and automate IT environments. Fortinet's integration of the Fortinet Fabric Connectors are available for software-defined networking (SDN) in both public and private clouds. The Fortinet Fabric Connector for IBM Cloud extends the Fortinet Security Fabric presence within IBM's service offerings and further strengthens IBM Cloud's service, by providing dynamic security for businesses as they continue migrating to hybrid-cloud architectures.

Challenge

Businesses are choosing a mix of cloud architectures and coupling this with increasingly dynamic network environments, so it is paramount that security solutions be prioritized from day one to ensure cloud migration and application modernization projects move rapidly and efficiently to ensure the desired, timely completion. Conventional network infrastructure lacks flexibility due to physical entities ranging from cabling, to servers, to rack spaces. This type of network cannot easily respond to evolving security threats. Multi-clouds are still co-existent, isolated sets of private clouds, public clouds, and physical entities requiring different security management methodologies, which have become a burden to administrators. As a result of these ever-increasing complexities, the rising number of instantiated entities with elastic environments and workloads are increasing risks of unattended vulnerabilities.

Joint Solution Description

IBM Cloud is built on a foundation of open-source software innovations, security leadership, and global enterprise-grade infrastructure. It enables trusted and secure solutions and access to innovation backed by deep industry expertise—that's battle-tested, and proven—for running a client's core business workloads.

Fortinet is extending this partnership with IBM Cloud by delivering the Fortinet Fabric Connectors for IBM Cloud, which leverages deep integration into the ecosystem as well as provides a rich set of application programming interfaces (APIs) and other interfaces to make IBM Cloud an even more secure and highly extensible platform. Fortinet Fabric Connectors provide out-of-the-box or built-in integration mechanisms and orchestration of FortiGate or FortiManager with key SDN and public cloud/private solutions.

Solution Benefits

- Easy to deploy and manage with best-in-class security capabilities

- Extends workload portability with security vulnerability defense from on-premises to the cloud

- Comprehensive advanced security and threat prevention for IBM Cloud

- Continuous control and visibility through a unified policy management console

- Mitigates concentration of end-to-end data and risk in consolidated environments within and across clouds

- Automation reduces operational workload and improves response times

FORTINET **Fabric-Ready**
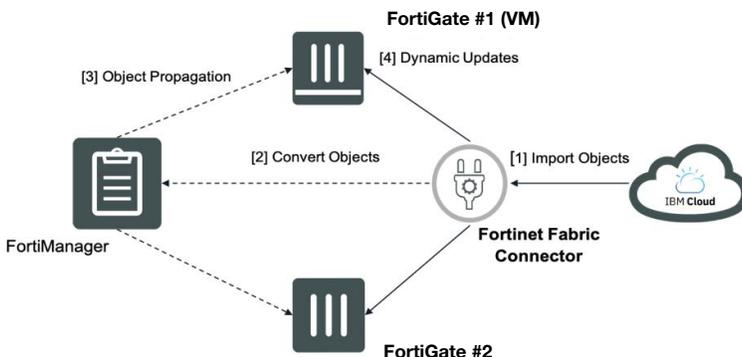
1. Security groups and/or relevant dynamic objects are imported to Fabric connector objects.

2. Objects are converted to the format that FortiManager* uses (if FortiManager is not deployed, FortiGate will do the same).

3. FortiManager propagates the definition of dynamic objects to all FortiGate instances under its management.

4. FortiGate automatically updates Firewall Address objects containing IP addresss in order to identify them properly while maintaining connectivity.

FortiManager to be supported in future version of 6.4x

Figure 1: IBM Cloud/Fortinet connector operation.

Joint Solution Components

IBM Cloud

IBM Cloud offers the most open and secure public cloud for business, a next-generation hybrid multi-cloud platform, advanced data and AI capability, and deep enterprise expertise across 20 industries. IBM Cloud offers a full spectrum of compute choices—from Virtual Private Cloud (VPC) to bare metal servers—to meet any businesses application needs.

Fortinet Fabric Connector

The Fortinet Fabric Connector for dynamic cloud policies enables either the FortiGate as a standalone system, or FortiManager, which manages multiple FortiGates, to integrate with the third-party SDN or cloud platforms to synchronize dynamic address group objects that are protected by the FortiGate firewall policies. No matter how objects change their forms and locations in elastic and volatile fashions, the FortiGate can identify them as address objects (can be used as sources and destinations) and apply appropriate firewall policies that reflect the cloud infrastructure automatically without manual intervention, which in turn reduces the possibility for human error and increases operational improvements due to less actions taking place.

Joint Use Case

Fortinet's integration of the Fortinet Fabric Connector into IBM Cloud extends security to include any compute node by associating each device (object), be they virtual or physical, to be identified by Fortinet FortiGates or FortiManager. Any security posture changes to the object will be automatically identified and dynamically updated to maintain consistent visibility. The Fortinet Fabric Connector adds to our existing API integrations with IBM, which include the FortiGate next-generation firewall as their gold standard in addition to visibility into IBM's Enterprise Class SIEM QRadar and IBM's Resilient incident response platform.

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