INTRODUCTION

Abstract
Zerto Analytics is rapidly being adopted into secure IT datacenters. With this adoption comes the need for customers to rely on Zerto's ability to securely provide best in class secure communication service and architecture between Zerto Virtual Managers (ZVM) and the Zerto Analytics datastore.

Secure communication between ZVM and Zerto Analytics is paramount in ensuring timely and accurate collection of analytic data. Transmitted Zerto Analytics data is securely stored and can be securely viewed and exported by the user. The data is also used by the analytics engine to provide advanced guidance and analysis.

This whitepaper describes the secure architecture that provides the path to transmit, the datastore where the data is housed, and access of that data.

ZERTO ANALYTICS OVERVIEW
Every day, businesses of all sizes face complex decisions. In order to generate greater overall efficiency, IT teams need to evolve based on more informed decision making. Zerto Analytics enables out of the box real-time and historical analysis of multi-site, Multi-Cloud environments. The Zerto Analytics platform provides:

1. Data and guidance for collaboration with peers to troubleshoot and solve problems
2. Guidance to make recommendations to optimize and plan environment resources efficiently
3. Understanding regarding future resource needs based on patterns in data history

The Zerto Analytics platform delivers unrivaled visibility across your entire multi-site, Multi-Cloud environment. Using VPG metrics such as average RPO, storage consumption, and network performance, Zerto Analytics provides real-time information based on real-time replication. All the collected data is aggregated and consolidated into a simple, easy-to-use web interface.

The Zerto Virtual Manager (ZVM) sends data once every minute to allow customers to monitor environments in real time. The data is compressed and throttled to minimize the amount of bandwidth consumed.

Enabling Zerto Analytics
Customers who have upgraded to Zerto Virtual Replication 5.0 or higher and have a valid maintenance and support contract have access to the Zerto Analytics platform. Enabling analytics is very simple:

1. In the Zerto Virtual Manager, go to Settings> About and check “Enable Zerto SaaS features. Includes Zerto Analytics, Zerto Mobile App and Remote Upgrade”
2. Go to the myZerto portal at zerto.com and login using your credentials.
3. Click on the Zerto Analytics tab
4. Begin monitoring environment health across all protected on-premises and cloud sites in one intelligent dashboard
Zerto Analytics Secure Architecture

ZVM sends all the data over HTTPS TLS 1.2 only to https://zerto-mobile-data.zerto.com. The data is stored in the Samples Storage in the SaaS backend, located in the public cloud. All communication to and from the cloud are encrypted (HTTPS) using TLS 1.2. Furthermore, the data is isolated in the SaaS backend and accessible only within the backend itself and via VPN from Zerto. End users are authenticated using their myZerto credentials.

Transmission and Storage of Site Status

ZVM transmits current site status over secured HTTPS to the SaaS backend in short (~1 minute) intervals.

The SaaS backend collects site status data from all transmitting sites and stores it in the “Samples Storage”. The “Samples Storage” is secured inside an internal protected network and is accessible only within the backend itself and via VPN from Zerto. The samples are kept in the “Samples Storage” of the Zerto Analytics cloud for 30 days to support 30 days of report history.

User Authentication and Authorization

Before sending any request to the backend, a client (browser/mobile/RESTful client) must obtain a security token which securely identifies the user. The security token is achieved by authenticating the user against the Identity Provider (IDP). Each client request contains the security token. For each request, the backend validates the security token and authorizes execution of the request according to the user’s identity which is part of the security token’s payload.
Reporting Historical Data

For each client request, the backend gets the latest data from the relevant samples as stored in the “Samples Storage”. The relevant data is sent to the client.

ZERTO ANALYTICS COLLECTED DATA

Transmitted Data

The Zerto Analytics dashboard utilizes several metrics to deliver detailed monitoring and reporting of your multisite, Multi-Cloud environment. Metadata includes alerts, tasks, sites, VPGs and IT resources. A complete list of all stored data can be found in the latest Administration Guides for the following platforms: VMware vSphere, Microsoft Hyper-V, Microsoft Azure and Amazon Web Services (AWS).

SUMMARY

The Zerto Analytics platform delivers a robust range of insights for solving enterprise-grade problems. To ensure a secure adoption of Zerto Analytics, customers need to know every piece of data that is collected from their environment. This whitepaper describes the secure architecture that provides the path to transmit, the datastore where the data is housed, and access of that data. With this information, enterprises can feel confident using Zerto Analytics to troubleshoot problem areas, optimize resource efficiency, and plan for the future to evolve into a data-driven enterprise.