instaclustr

Case Study

CLOUDTRAX

Snapshot

Data size:
6 nodes

Sector:
Technology
Infrastructure

Use case:
Internet of Things

CloudTrax is a free cloud-based network controller from Open-Mesh that enables customers to build, manage and monitor enterprise-grade wireless networks from anywhere in the world.

Overview

Open-Mesh creates low-cost, cloud managed wireless mesh networks that enable the deployment of enterprise-grade Wi-Fi throughout a hotel, apartment, office, retail store, campus or any organized environment.

Open-Mesh designs, builds and sells the hardware required, including a line of access points and modular enclosures. All access points are managed with Open-Mesh's free cloud-based network controller, CloudTrax.

CloudTrax works with Open-Mesh access points to establish wireless networks and enable the detailed management of these networked environments. This includes setting the bandwidth for individual users, designing corporate splash and connection pages, tracking and monitoring the usage of all clients, applications and network connectivity.

> ***We chose Instaclustr because of their expertise in database management, allowing our engineering team to concentrate on our core business and building the CloudTrax platform.***

Andreas Langer
Lead Engineer, Open-Mesh

Challenge

Open-Mesh had a large existing customer base with over 180,000 deployed devices in 80,000 cloud-managed networks serving millions of daily clients worldwide. With a new generation of firmware, the Open-Mesh engineering team was tasked with tracking 3-5 times more clients and all application-level data per client. Developing and releasing a new management platform would need to immediately be capable of scaling rapidly to serve the existing user base and grow significantly as additional networks were added over time.

The managed environment needed to be capable of storing a vast amount of data for each network on a range of different metrics that the controller collects, analyzes and reports on. This ability to scale couldn't be compromised by downtime; adding more capacity had to be done in a continuous manner. In addition, as the CloudTrax solution would be eventually managing hundreds of thousands of networks globally, any database solution needed to be capable of delivering continuous availability without downtime.

Solution

After extensive research, the Open-Mesh team knew that Apache Cassandra was ideal for their intended capability. The solution had the scalability and data storage requirements to meet the needs for the CloudTrax platform.

The solution and platform is a perfect example of Apache Cassandra enabling the Internet-of-Things – consuming a vast amount of time-series data that comes directly from users and devices in a variety of geographic locations.

The Open-Mesh engineering team used Instaclustr to provision an initial development environment for the CloudTrax platform in minutes. The team used this environment to establish and build the platform and this has now been launched it into production, the entire development lifecycle on Instaclustr.

About Instaclustr

Instaclustr is a company with extensive experience in designing, deploying and managing critical infrastructure for open source solutions that require immense scale.

We deliver mission critical, high performance and always on data solutions for our customers. We provide managed and hosted services for open source data management solutions such as Apache Cassandra and Apache Spark. We also deliver a wide range of related consulting and support services for these technologies.

Instaclustr's consulting expertize leverages the experience we have gained from almost 10 million node-hours of managing Apache Cassandra and related technologies. Our staff includes experienced consultants with deep expertize in the technologies we support as well as extensive consulting experience.