AerVoyance IoT and M2M Analytics

aeris

VISIBILITY. INSIGHT. ANSWERS.

CONSOLIDATED DASHBOARD

The AerVoyance dashboard provides a consolidated overview of the account including billing, usage, and devices under management.

MANAGE DEPLOYMENT

See the deployment progress over time including provisioned, billed, canceled, and suspended devices.

SMART ALERTS

View, monitor, and set alerts to manage billing overages and anomalies. Identify the underlying reasons and manage the data plans to optimize costs.

MONITOR FOOTPRINT

In real-time, monitor the device footprint by setting and receiving alerts related to usage including overage, roaming, geo-fencing, etc.

PERFORM DIAGNOSTICS

Identify and diagnose device-specific issues related to usage, costs, and device behavior, etc.

ANOMALY DETECTION

Use built-in anomaly detection and machine learning engine to efficiently manage your devices.



FIGURE 1: AERVOYANCE DASHBOARD PROVIDES AN OVERALL VIEW OF YOUR ACCOUNT.

THE DATA COMPLEXITY PROBLEM

With billions of sensors collecting trillions of data points, the Internet of Things will amass information on a scale never before seen. Only when we analyze that data can we truly release the value of the Internet of Things. However, collecting, managing, and analyzing data on such a large scale presents a big challenge.

AerVoyance provides IoT analytics to effectively manage IoT / M2M deployment using an intuitive, visual presentation. It is designed to help address the challenges of gaining visibility and insight into devices, connectivity, and billing information.

PROACTIVELY MANAGE IOT CONNECTIVITY

Not only can you identify devices with connectivity issues, but you can focus on a specific device, time, or usage activity including data, SMS, voice, sessions, registrations, etc. This lets you find specific devices that are outliers or are behaving abnormally. Also, you can see a summary view of the device portfolio including billing, usage, and status. Finally, you can understand aggregate and average connectivity usage over time to better plan your deployment.

MANAGE DEVICE USAGE AND DEPLOYMENT

AerVoyance enables you to proactively monitor and manage your deployment in real-time. You will be quickly alerted to any failures, thus helping to avoid expensive diagnostics. Also, as the systems learn from this failure data, it can alert you about impending failures in the future. Lastly, you can gain visibility into the cumulative growth of devices and split of devices by status.



FIGURE 2: VIEW DEVICE DEPLOYMENT IN REAL-TIME.

UNDERSTAND BILLING BEHAVIOR

AerVoyance allows you to manage your costs by revealing coverage, data, SMS, and roaming charges. You can even view monthly costs and their components in aggregate and over time. Finally, you can view the total and average billing over time to understand trends in device behavior.

SET SMART ALERTS

To effectively monitor the IoT deployment, you can set up alerts when specific events occur instead of continuously reviewing all the relevant data. For example, if a device makes too many registration attempts, there might be a hardware issue. AerVoyance's alerts can further enable you to build pre-defined actions to help to fix or mitigate a problem.

Set up MyAlerts			Create new alert X			Oreate new alert
			- Alert info		*	
Name	Status	Group	Name.*	High Registrations	Last updated	Actions
Max SMS Alert	Active	Entre Ac	Description:		Apr 18th, 2015	× 1
Description:						
Account: 11176			- Device info			
			Include devi	ces from. Entire Account		
SMS Threshold(s): MIR	I N/A MAX 3	(Msgs)	- Threshold & trippe	er info		
Action(s): Hourly email a	lert.		Alert type.*	Registration Registration		
Data 100KB daily	Active	Entre Ac		Min: Max	Apr 18th, 2015	× 8
SM52	Active	Specific (5 (count) 15 (count)	Feb 12th, 2015	/ 1
MonthlyUsageAlert1	Active	Entre Ao	Time period		Jan 22nd, 2015	/ 1
			Action info	Create new / Edit a	et	
				R Hourly email alert		
			ACION.	Apply Traffic Policy		
			Apply traffic policy	R Rock All		
				Block Packet		
				Block SMS		
				B Block Voice		
				Cancel Save		

MANAGE YOUR IOT / M2M DEPLOYMENT.

DETECT ANOMALIES AND TAKE RECOMMENDED ACTION

AerVoyance has a built-in anomaly detection and machine learning engine that identifies anomalies such as certain devices using higher-than-normal amounts of data and presents this in a simplified format. It also provides predefined actions to take based on that behavior and enables you to narrow down specific devices causing the anomalies.

KEY PROBLEMS AND SOLUTIONS

PROBLEM	SOLUTION
Can't monitor devices in real-time for more efficient deployment.	View devices deployed and track their usage and billing well before you receive your monthly bill.
Planning ineffectively without understanding of deployment progression over time.	Able to see number of provisioned, billed, suspended, and canceled devices over time.
Surprised by unexpected bills and significant usage changes that leads to high bills.	Gain visibility into the billing history, current usage, and projected usage based on latest usage data.
Have little visibility or ability to manage billing costs.	Set billing or usage alerts that will enable the user to take appropriate action to manage costs.
Troubleshooting erratic devices – e.g., frequent registration, multiple sessions, too high data usage by some devices, etc.	Automated anomalies and specific alerts that enable user to be notified of device behavior changes and also ability to automate actions.
Don't know where the devices are deployed and if they are connected and behaving normally.	Map view of devices and summary status showing all devices working properly.
Difficult to use raw data reports to extract the key insights.	Simple interface shows the relevant data in a graphical format.

ABOUT AERIS

Aeris Communications, Inc., is a pioneer in the machine-to-machine market, an integral part of the Internet of Things. We are both a technology provider and a cellular network operator delivering comprehensive M2M / IoT services to leading brands around the world. We put the "Internet" in the Internet of Things.

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