Gaining Valuable Insight with Allot Network Data Source and Analytics

About the Tier-1 Operator

As a fully-integrated info-communications company in a competitive market, this leading Tier 1 Operator offers a full range of information, communications and entertainment services for both consumer and corporate markets. The Operator's mobile network provides 4G, 3G and 2G services. It also manages an HFC network that delivers high-speed residential broadband services.

Challenge

The Tier 1 Operator was three-years into a regulatory compliance project for data sourcing that had hit a plateau due to lack of technical capabilities and professional services. To get the project back on track, the customer was in dire need of granular DHCP gleaning and business intelligence solution that could format data usage records per data collection and formatting requirements of the regulator. In addition, the Operator wanted to leverage this valuable network data to advance marketing and network operation projects. It was decided that this big data sourcing and analytics project would serve three stakeholders:

- Rich data records for regulatory compliance to be delivered in under four months
- Big data analytics mainly for marketing use cases and information brokerage
- Network data insights that would be utilized both for operations management, network planning, and business units

Solution

Allot Communications professional services teams were called into to first evaluate, define, plan and implement the best possible data source and analytics solution for optimal results and fast implementation. Allot Actionable Network Data Source solution was chosen as the principle solution as it expertly captures a rich variety of contextual application, user, endpoint and video usage statistics from networks. These valuable usage statistics would then exported to BI applications and other Operator systems where they could be analyzed.

Allot Service Gateways were deployed in a few dozen fixed network sites and managed centrally by Allot NetXplorer management. The individual site deployments were configured to relay real-time data records to Allot's centralized data mediator, which in turn formatted and exported these data records to two main destinations: 1) the Operator's data warehouse (HADOOP) and 2) the Allot ClearSee Network Analytics platform utilized by the network planning unit.

By working with Allot Data Science Services team, the Operator realized that they had been collecting data per IP address instead of per subscriber ID, which was causing severe limitations when trying analyze subscriber usage and behavior. As a result, the Operator installed Allot Subscriber Management Platform (SMP) to provide the necessary subscriber awareness for each data transactions.

Allot Network Data Source and Data Science Services enabled the Tier-1 Operator to achieve its "big data" project goals and realize many unanticipated benefits along the way.

Challenge
Tier-1 Operator was three-years into a regulatory compliance project for data sourcing that had hit a plateau due to lack of technical capabilities and professional services.

Solution
Get the compliance project back on track with Allot Network Data Source and leverage Allot expertise in Network Analytics for marketing and network planning purposes.

Benefits
- Meet regulatory requirements on time
- Introduce valuable network data to existing BI systems
- Establish scalable network data source for big data projects
- Fast delivery of ongoing customization requirements

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Network Data Source Customization

One of the most important aspects of the project was the customization of data records to feed seamlessly into the Operator's existing data warehouse. This customization made the project a success on several levels:

URL Categorization: Allot professional services customized HTTP browsing records per specific URL categories required for marketing purposes and traffic analysis.

Application Categorization: In addition to Allot's advanced, out-of-the-box application categorization, the Operator required customized categories with specific levels of application granularity to be included in the data sets. This was achieved through expert insight from the Allot onsite team.

Metadata Extraction: A real highlight of the project was the ability for the Operator to extract real time search engine metadata that was previously inaccessible. Allot extracted this metadata and formatted it for seamless and scalable use by existing operational system and marketing teams.

Formatting: Allot completely customized the format of the data source records so they could be exported directly to the existing data warehouse. This allowed new network data to be introduced with ease and without having to alter DWH and BI systems in any way, saving time and money for the Operator.

Discovering new kinds of data: The Operator was introduced to new information which they had no access to beforehand such as device usage, video QoE parameters such as session start/stop, video stalls, video duration, and other valuable statistics.

Network Analytics Drill-Down with Allot ClearSee

As part of the overall project, the Operator's Network Planning Unit wanted to leverage the rich data source for network analytics. They installed Allot ClearSee Network Analytics which provided a full dashboard of visual reports and analysis of bandwidth consumption, application usage, traffic patterns, etc. to better plan for network upgrades, maintenance, and other principle activities. In addition, they complement the dashboard with customized reports provided by Allot Data Science Services.
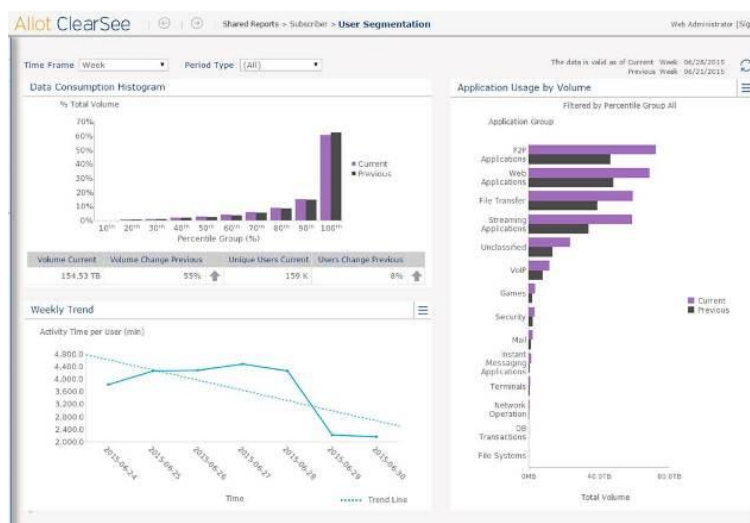
Benefits

Allot Network Data Source and professional Data Science services enabled the Operator to achieve project goals and realize many unanticipated benefits along the way:

Allot ClearSee Network Analytics Dashboard

- Regulatory compliance on time and on budget
- Introduce new BI data sources without changing existing systems
- Gain insight from data and metadata that previously could not be extracted
- Establish a scalable data source platform for all kinds of network "big data" projects
- Rapid deployment in dozens of locations with full turnaround in under 4 months
- Fast delivery of ongoing operator customization requirements

Conclusion

What started out as a "compliance" project was leveraged by the Operator into an exceptional data source and network analytics solution for marketing, management, network planning and operational units. Allot expert professional services and high end products were able to make this possible.

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