POWERING TELCO-GRADE SDx SERVICES WITH DPI-DRIVEN NETWORK INTELLIGENCE

BBT.live uses real-time traffic visibility of R&S®PACE 2 to enrich service provider connectivity solutions for improved network performance and security

ROHDE & SCHWARZ

Make ideas real

Providing secure and reliable network connectivity between branches, data centers, applications and users is a daunting challenge for service providers (xSPs). BBT.live's BeBroadband™ edge software with built-in DPI engine R&S®PACE 2 enables xSPs to rapidly deploy and efficiently manage telco-grade SDx services.

SUMMARY

Business area

▶ An all-in-one, telco-grade software-defined connectivity solution provider

Challenge

▶ Enabling application-aware networking capabilities for smarter routing decisions and more effective security monitoring

Solution

▶ Embedding deep packet inspection (DPI) engine R&S®PACE 2 within BBT.live's BeBroadband™ edge software to equip the centralized management platform with real-time application and threat intelligence

Benefits

▶ By incorporating R&S®PACE 2's advanced traffic visibility, BeBroadband™ edge merges connectivity with deep network intelligence, enabling xSPs to optimize network performance through application-aware traffic management and improve security by identifying suspicious and anomalous traffic flows in real-time

CHALLENGE

Enabling real-time WAN optimization and orchestration of application and threat awareness within BeBroadband™

Modern business networks must securely connect branches, headquarters and data centers while also supporting cloud applications and remote workers connecting from outside the traditional network perimeter. This creates several unique challenges for service providers. The most critical challenge is the ability to monitor, manage and control all network traffic flows based on deep traffic insights and application awareness.

BBT.live's BeBroadband™ edge software is an all-in-one software-defined secure connectivity solution. It provides a single orchestration platform that allows service providers to centrally commission, control and monitor network connectivity for their customers across any network type (SD-WAN/LAN, WFA, IoT, and cloud), at any scale and for any industry vertical. In order to deliver a truly all-in-one solution, BBT.live had to equip BeBroadband™ with application-aware networking capabilities such as smart load balancing and dynamic security rule implementation for optimizing network performance and improving service reliability. To be a true all-in-one solution, BeBroadband™ edge software also had to provide deep and universal traffic visibility that service providers could enable with a single click.

A key challenge was to detect and classify IP network data including traffic that is encrypted and obfuscated. Another challenge was ensuring unlimited processing capacity and reporting capabilities that can be scaled across any number of customers and traffic flows. Since service providers serve customers with unique networking and security requirements, BBT.live was also challenged to find a visibility solution that not only integrates seamlessly with its single orchestration platform, but is also compatible with all the different connectivity types such as 5G, 4G, broadband, and MPLS, as well as cloud and edge infrastructure supported by BeBroadband™.

SOLUTION

Integrating a cutting-edge, high performance DPI engine for real-time traffic visibility

To address these challenges, BBT.live deployed ipoque's R&S®PACE 2, a market-leading DPI engine, in its BeBroadband™ edge software. It allows service providers to drive actionable traffic insights for smarter traffic routing through WAN optimization and security decisions. R&S®PACE 2 provides granular visibility into the traffic-traversing xSPs' networks, regardless of the underlying infrastructure. Its advanced traffic classification methodologies, which include behavioral, heuristic and statistical analysis, enable highly accurate, real-time identification of thousands of applications, protocols and service types. R&S®PACE 2 also provides encrypted traffic intelligence (ETI) which leverages machine learning, deep learning and high-dimensional data analysis to classify even traffic flows which are encrypted, obfuscated, and anonymized. Using these insights, xSPs can identify mission-critical traffic flows and perform application-aware traffic steering and prioritization. This paves the way for efficient bandwidth utilization and application-aware security filtering.

R&S®PACE 2 also provides BeBroadband™ with custom metadata extraction to deliver WAN optimization insights on traffic performance, users and devices. It allows xSPs to identify network bottlenecks, troubleshoot issues and detect traffic irregularities, enabling a proactive management of threats.

At the same time, R&S®PACE 2 offers virtually unlimited processing capacity and efficient memory and CPU utilization to scale with service providers and their customers' demands. Finally, R&S®PACE 2 integrates seamlessly with BeBroadband's™ intuitive self-service orchestration portal. This allows service providers to tap into its analytics with a single click, without deploying and managing any dedicated WAN optimization appliances on their end.

The benefits of licensing R&S®PACE 2

▶ Comprehensive, frequently updated signature library
▶ Highest classification accuracy in the market
▶ Encrypted traffic intelligence (ETI)
▶ Fastest performance on the market
▶ Most efficient memory and CPU utilization
▶ Fast and seamless integration
▶ Infrastructure-agnostic, catering for any xSP / SDx
▶ Lower TCO and higher ROI

RESULT

"All-in-one" intelligent software-defined connectivity that delivers better network performance and reliability

By integrating R&S®PACE 2, BBT.live is able to provide application-aware networking for xSPs. Using real-time traffic filtering, xSPS can now identify and prioritize traffic flows across hybrid WANs, including public cloud connectivity for cloud applications, and steer them over optimal links in multivariate enterprise networks. In doing so, xSPs are able to improve response times for business applications over all the bonded WAN links and mobile connections. They are also able to improve data transfer efficiency across enterprise WANs to, for instance, enable faster storage replication across public clouds or remote data centers. Overall, R&S®PACE 2 allows xSPs to optimize their bandwidth utilization, saving costs and bandwidth for themselves and their customers.

In addition, xSPs can now enforce access control and security policies based on application risk profiles enabled by R&S®PACE 2's intelligent and efficient traffic classification. This way, R&S®PACE 2's real-time traffic and threat awareness improves the overall security posture of service provider's infrastructure. BBT.live is also able to overcome the challenges of scalability, performance, and customization needs for xSPs with customers across different industries.

Instead of building DPI in-house, licensing the industry-leading and easy-to-integrate R&S®PACE 2 engine presents a cost-effective and an improved ROI solution for BBT.live. With built-in DPI, its BeBroadband™ edge platform allows centralized and efficient management of SD-WAN/LAN, WFA, IoT, and cloud networks, improving performance and reducing networking complexity. BBT.live now promises a truly all-in-one solution for enabling telco-grade SDx services with fail-proof connectivity and top-notch security.

> "With comprehensive real-time WAN optimization insights at application, user and network level, Rohde & Schwarz equips service providers with the intelligence needed for optimizing network resources and delivering the performance, reliability, and security based on each customer's unique networking requirements."
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> **Moshe Levinson, CEO at BBT.live**

ipoque

ipoque, a Rohde & Schwarz company, is a global leader in the world of network analytics software. We leverage our deep domain expertise to create customized software solutions that empower our customers to transform data into intelligence. As a subsidiary of Rohde & Schwarz, we take advantage of potential synergies.

Rohde & Schwarz

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