tele|engine
Device-less branch office application performance guarantee

The Autonomic Networking System™ (ANS™) is at the heart of Ipanema's ability to connect application performance to the enterprise's business goals. Self-learning, self-adapting and self-healing, ANS offers tightly coupled features that together bring a unique level of intelligence to the enterprise network, including:

Application Visibility, providing full understanding of application usage and performance over the global network - from the smallest detail up to high-level KPIs to manage application SLAs and capacity planning;

QoS & Control, dynamically adjusting traffic control and network resources according to users' activity and application performance objectives, enforcing critical application SLAs in the most complex and challenging traffic situations, while guaranteeing the best possible usage of the infrastructure;

WAN Optimization, accelerating application response time, optimizing chatty protocols and providing additional virtual bandwidth by substantially reducing the volume of data transmitted across the network;

Dynamic WAN Selection, selecting the best route for application flows in multi-networked branch offices according to the application performance objectives of each user flow and the real-time performance characteristics of each available path.

Ipanema's ANS uses both software and hardware components that collaborate in real time. The Ipanema software component for managing branch office application traffic from central sites only is called **tele|engine**.

On high speed, low latency networks such as domestic networks, branch devices are not necessary to guarantee user experience.

Ipanema's unique **tele|engine** allows enterprises to get full application visibility and control without any hardware appliances or software agents in branches.

Tele|engines are autonomic software agents running on **ip|engines** located at central sites. The collaborating agents automatically take into account and manage the complex application mix and traffic matrix – including some-to-any situations when flows from and to a branch terminate and originate in multiple datacenters, including the Internet. With Ipanema's solution, tele|engine agents are automatically instantiated across ANS according to each branch's traffic topology. They dynamically adapt to highly variable traffic conditions to deliver bi-directional visibility and control.

Leveraging the power of Autonomic Networking, **tele|engines** deliver cost effective application control in unequipped remote branches, whatever the network size. They are the solution of choice for organizations with very large international and domestic networks.

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TELE|ENGINE FEATURES

Tele|engines deliver the following ANS features to unequipped branches:

- **Application Visibility**, which classifies applications and collects network and application performance metrics for troubleshooting, reporting and SLA compliance;

- **QoS & Control**, which enforces application performance objectives to guarantee critical application performance and provides TCP protocol acceleration.
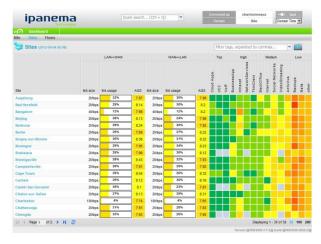
COLLABORATION IS THE KEY

The ability of Ipanema's ANS to orchestrate collaboration of its appliances and software agents in real-time is at the heart of tele|engine efficiency.

In a modern branch office, users need to access applications that sit in multiple locations, including server sites, private data centers and public clouds over the Internet. The branch office is rapidly congested by the combination of all these flows competing for bandwidth upstream and downstream, severely affecting user experience.

The collaboration among ANS autonomic agents allows emulating a local device (tele|engine) to gain full understanding of the global situation at the remote branch – i.e., the combination of each user's application flows and the traffic matrix.

ANS autonomic agents:

- See the upstream and downstream traffic for the branch to analyze in real-time the global competition between flows;

- Collectively emulate a local device - the **tele|engine** - which automatically adjusts each of the branch flows to guarantee the performance of business critical-applications for branch users;

- Temporarily throttle back less critical traffic if necessary to protect business flows while ensuring the maximum usage of the available bandwidth.

Tele|engine global visibility for branch offices is obtained by autonomic **tele|engine** agents collecting traffic information about each flow (application, volume, quality, etc.) and automatic consolidation by ANS central management (SALSA®).

Tele|engines are particularly efficient and cost effective for large networks:

- A pan-European rental car company that needed to guarantee the performance of its critical application (car reservations and contracts) across its meshed network of 1,500+ rental stations achieved this objective by deploying only 20 devices at data centres and national headquarters and one tele|engine per rental station.

- A leading insurance company manages its global network of 2,000+ offices from only four devices located in data centres, 12 devices in main regional locations and one tele|engine per office.

- A major UK retail bank with 2,500 branch offices across the country achieves global visibility and control with only a few physical appliances in its data centres and a tele|engine for each branch.

- The world's leading inspection and certification company which operates a network of over 1,200 offices around the world deployed physical ip|engines for 100 of its main sites where WAN Optimization was required and 1,100 tele|engines to complete the global visibility and control of all application traffic.

Autonomic agents share information about every flow and control traffic in both ways from their central sites

Minimum user bandwidth for good SAP quality

Emulated **tele |engine** guarantees critical applications performance on the unequipped site

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