



GUARANTEE LYNC PERFORMANCE OVER YOUR WAN

WITH IPANEMA, DECREASE TRAVEL COSTS BY 15% & ACHIEVE
A USER ADOPTION RATE OF 90% AFTER 6 MONTHS

WHITE PAPER

(Re)discover Simplicity®
to Guarantee Application Performance

ipanema
Technologies

EXECUTIVE OVERVIEW

Guarantee Lync performance and reap the expected benefits in terms of employees' productivity and telecom costs savings.

Lync is a global Unified Communications solution delivered by Microsoft integrating real-time communication services such as instant messaging, presence information, telephony, video conferencing and data sharing with non-real-time communication services such as integrated voicemail, e-mail and SMS.

81% of enterprises have concerns about Lync Quality of Service (Network bandwidth availability 47%, Video 32%, Desktop sharing 24%)¹.

Getting the most out of Lync in terms of employees' productivity and telecom costs savings depend on the end-user's experience when using Lync.

You have to be able to:

- Guarantee each and every VoIP call and Videoconference quality;
- Protect other business critical applications against bandwidth hungry and lower criticality flows;
- Monitor user adoption and adapt performance objectives to the real usage.

1. According to "Lync Adoption and Challenges: A Survey of Microsoft Lync Users" by **dimensional research**, sponsored by **DELL**, January 2014.

Ipanema is the only global provider that can help you to maximize Lync adoption, decrease travel costs by an average 15% and have a user adoption rate of 90% after 6 months.

With Ipanema, (Re)discover Simplicity and guarantee your Lync performances!

LYNC OFFERS HUGE OPPORTUNITIES TO ENTERPRISES

The purpose of Lync is to clean up the mess created by the addition of discrete communication tools by consolidating all forms of real-time and non-real-time communications into a single, integrated solution.

Lync offers huge opportunities for the enterprise, with benefits including:

- **Improved productivity**
Lync expands the integration between data and communications applications, promoting continuity across all business processes.
- **Easier collaboration**
With Lync, coworkers, business partners and clients can meet and collaborate, using advanced data sharing and communications devices.
- **Enhanced customer satisfaction and competitive advantage**
With Lync, the enterprise can quickly answer customer questions and

provide better support. Customer retention, loyalty and referrals ultimately improve the bottom line.

- **Cost Savings**

Lync cuts traditional telephony costs: decommissioning legacy PABX, saves maintenance and operational expenses. With Lync's IP telephony, enterprises are able to route internal site-to-site calls over the corporate data network, lowering long-distance costs, as well as maintenance and support costs. With videoconference and screen sharing, enterprises also reduce travel expenses and office space, while running their business more efficiently and improving their employees' working experience.

LYNC FLOWS INCREASE COMPLEXITY AND ARE HIGHLY SENSITIVE TO NETWORK QUALITY

Lync flows introduce significant complexity and put the network at risk. It has to be managed efficiently to deliver the expected Quality of Experience and to avoid impacting other business applications performances. **Lync performance has to be guaranteed over the WAN to deliver the promised benefits.**

1. **Lync dynamic flows increase the pressure on the WAN**

The variety of technologies used by



WITH IPANEMA YOU CAN:

1. Guarantee each and every VoIP call and Videoconference quality
2. Protect other Business Critical applications against bandwidth hungry and less critical flows
3. Monitor the user adoption and adapt performance objectives to the real usage

Lync (including phone, email, instant messaging, audio conferencing, video conferencing and web conferencing) as well as the large number of protocols for data, voice, video, screen sharing, gateways, signaling, authentication, error detection/correction and Lync management put pressure on the WAN. This means that it's more complicated for the IT department to control Lync flows.

Furthermore, as these flows are dynamic, their impact on the WAN is highly unpredictable, putting other business-critical applications such as SAP, Oracle and Salesforce.com at risk.

Even within a single communication, traffic is dynamic. Audio traffic is sent from endpoints only when users speak. In a video conference, the source of traffic changes constantly as the active speaker and the previously active speaker stream their video while all other participants receive the video streams.

Lync codecs have different requirements and can even be adaptive. Communication streams are not always the same. A codec may sense poor network quality and adjust to a higher bandwidth to include redundant patterns during a communication. Setting up an audio conference may cause switching from one codec to another. In addition, the data traffic associated with screen and application sharing can generate very dynamic bursts of traffic depending on the content shared, the screen resolution and how the users modify the content.

2. Lync significantly increases WAN traffic

With Lync, traffic on the WAN strongly increases and is more difficult to control due to its diversity. Each type of communication behaves differently across the WAN and the traffic matrix constantly changes from one second to the next.

For example, desktop video communication uses 300 Kbps to 1Mbps per user. This is several times the average bandwidth provisioned on a typical enterprise WAN (usually 50 to 100 Kbit/s/employee). As a result, to mitigate this risk, many enterprises block desktop video, thereby disappointing users.



By the end of June, KBC will have 15,000 users on Lync online in its bank branches and headquarters. We can't take the risk that our users won't get an optimum Quality of Experience therefore we chose Ipanema to guarantee the Quality of Service of our network as well as the performance of our business critical applications such as bank transactions and VoIP.

Bart Adriaensen
Head Telecom and UC²
eWorkplace, KBC Group



3. Pre-existing business applications are at risk

Enterprises' senior management and lines-of-business can put a lot of pressure on the IT department to deploy Lync. At the same time, CIOs and IT directors face another serious demand: deploying Lync must not impact the performance of pre-existing applications that support the business, such as SAP, Oracle, Salesforce, Virtual Desktop Infrastructure (VDI), etc. While business critical applications typically generate less than

20% of the total WAN traffic, they might be severely impacted by the dynamic and expansionist Lync flows. This is not a comfortable situation for IT managers.

4. Unmanaged WAN lead to soaring expenses

Early Lync adopters have significantly increased their TCO (Total Cost of Ownership) by handling the above Lync risks with excessive bandwidth upgrades (when not deploying a dedicated network). Overprovisioning entails substantial unpredicted expenses that jeopardize the Lync project's ROI. Moreover, Lync deployment delays caused by bandwidth upgrades and more complex IT operations add to the TCO.

As a consequence:

81% of enterprises have concerns about Lync Quality of Service (Network bandwidth availability 47%, Video 32%, Desktop sharing 24%):

- How do you make the expected savings on travel & voice charges?
- How do you prevent and solve voice and videoconference quality problems?
- How do you reduce risk of a network crash when rolling-out some Lync features?
- How do you protect business critical applications from the impact of Lync deployments?
- How do you manage Lync's unpredictability (real usage & performance) on the network?
- How do you easily deal with on-premise and online deployment?



Without Ipanema it would have been impossible to manage our new IT transformations. Especially for Microsoft Lync as people expect an excellent quality for their voice calls and desktop video meetings. If users are disappointed with the quality, they will stop using the new system and will go back to their old ways. This could become very costly and a big letdown for Microsoft Lync's adoption.



Rob Janssen
Manager Global Infrastructure
& QRC at Marel

IPANEMA IS THE ONLY SOLUTION TO GUARANTEE LYNC PERFORMANCES

1. Ipanema is definitely better than WAN Optimization to guarantee Lync performances

WAN optimization solutions mitigate the impact of low network bandwidth and high delays on application performance by using data compression, caching and protocol optimization. None of these techniques applies to Lync. Voice and video codecs are already “self-optimized” and non-cacheable. Control protocols are already very efficient. On the one hand, instant messaging and presence consume little bandwidth. On the other hand, Lync real-time traffic requires stable delay, low jitter and guaranteed bandwidth in a very dynamic environment which is exactly what Ipanema’s full set of integrated features provides.

“UC technologies, especially VoIP, video and application sharing, have rigorous network requirements in the areas of bandwidth, latency and reliability,” say **Gartner analysts**. “Additionally, the ability to perform network monitoring functions is critical to the ongoing success of UC deployments.”²

2. **Ben Elliot and Steve Blood**, “A Technology Framework for Enterprise Unified Communications,” **Gartner**, 15 March 2012, Publication Number G00226419

Discrete, legacy network solutions such as WAN Optimization Controllers (WOCs) and Application Delivery Controllers (ADCs) are static and cannot manage Lync traffic with its user-centric technologies.

2. Ipanema protects Lync performances while guaranteeing the pre-existing business applications sharing the same network resources

Ipanema is able to control the entire application traffic that runs over the WAN, and provides enterprises with a direct connection between application performance and their business requirements.



Video and audio conferencing solutions clearly enhance our business agility and make sales process much easier and more efficient. Thanks to Ipanema we had a strong adoption of Lync and have been able to reduce our yearly travel costs by 20%.



**Daniel Merckel-Divisional
Director Market Supervision
& Support, GLOBUS**



The Ipanema system recognizes that:

- Lync is not a single application, but a suite of very different applications;
- Lync must harmoniously co-exist with all other applications over the WAN.

3. Ipanema is the only complete, dynamic and fully integrated system allowing an optimal and easy Lync performance management

Ipanema's self-learning and self-optimizing system tightly integrates all the features to guarantee the best application performance: Application Visibility, QoS

and Control, WAN Optimization, Dynamic WAN Selection and Network Rightsizing. It provides the enterprise WAN with the real-time flexibility to fully reap Lync benefits, while protecting pre-existing applications.

4. As a result, with Ipanema you can maximize the adoption of Lync with an average 15% decrease in travel costs and an adoption rate of 90% after 6 months

- **Ensure the quality of VoIP Calls & Videoconferencing** even between two branch offices by guaranteeing the required bandwidth and stability for these real-times flows;



APPLICATION VISIBILITY

Leverage Lync usage and performance to communicate clear dashboard to your Business lines



QOS & CONTROL

Guarantee that 98% Voice and Video calls always have the minimal required bandwidth on your network and that business critical applications are never impacted by less critical ones



WAN OPTIMIZATION

Accelerate traffic and response times to beneficiate from additional virtual bandwidth and improved Quality of Experience (QoE)



DYNAMIC WAN SELECTION

Define a homogenous performance policy no matter where the application is stored (Private Data Centre or in the Cloud)



NETWORK RIGHTSIZING

Avoid unnecessary bandwidth upgrades and optimize your network costs

- **Allow webcams and regulate these hungry low-criticality flows** by automatically containing bandwidth per communication as soon as necessary;

- **Continue to protect business critical applications** so that additional Lync traffic does not impact core business productivity;
- **Centrally monitor in real-time Lync & ERP performance** as well as impact on the network, adapt bandwidth objectives when necessary;
- **Deploy a hybrid network to gain additional capacity** and absorb new traffic by diverting less critical flows on Internet low cost links.



To take full advantage of Lync including video, voice, desktop sharing and file transfers, enterprises need to make sure their network supports these specific and dynamic flows while being able to monitor their performances and usages. Ipanema is one of the best solutions to protect performances of Lync and other business applications on the network maximizing end-user adoption. Thanks to Ipanema, the expected benefits of Lync in terms of travel and telecoms costs reduction, adoption and employee productivity are maximized.



Etienne Lacour
Product Manager for Unified Communications at Microsoft



Lync's expected benefits in terms of employees' productivity and telecoms costs savings are easily reached:

1. Employees' productivity is improved with a **90% adoption rate**;
2. Travel and telecoms **costs are reduced by 15%**;
3. Overall **time to deploy Lync is divided by 2** from 12 months to 6 months.

With Ipanema you (Re)discover Simplicity and guarantee your Lync performances!

ABOUT IPANEMA TECHNOLOGIES

Enterprises' Digitalization accelerates. In a world that moves at web speed, IT departments have more and more difficulties to manage the complexity of their information system.

Unified Communications, cloud computing, SaaS, BYOD, social media VDI, shops 2.0 are just a few examples of IT trends that strongly increase IT complexity.

In this case, how can you regain control and align IT with strategic corporate objectives? How can you manage more demands and usages with the same network resources to stabilize telecom costs?

With Ipanema, (Re)discover Simplicity to guarantee your application performance.

For more information, visit: www.ipanematech.com

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