



HYBRID CLOUD FOR YOUR DISTRIBUTED  
ENTERPRISE  
FIVE CONSIDERATIONS FOR DEPLOYING A  
BRANCH NETWORKING SOLUTION

Stratecast

F R O S T  S U L L I V A N

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Lynda Stadtmueller  
Vice President – Cloud Services

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## HYBRID CLOUD FOR YOUR DISTRIBUTED ENTERPRISE: FIVE CONSIDERATIONS FOR DEPLOYING A BRANCH NETWORKING SOLUTION

When most enterprises consider the optimal deployment model for a performance-sensitive application, they often settle on the premises-based data center. Unlike a public cloud deployment, an application that is deployed locally, on premises, avoids network-induced problems such as latency and jitter.

For distributed enterprises, however, in which hundreds or thousands of remote branches operate without a data center (or even a server room) on premises, the decision takes a different turn. For branches, nearly every application is delivered remotely, whether from a public cloud service or corporate headquarters. For branches, it's not an option to avoid the network. Instead, they must manage network resources to deliver applications optimally.

But this can be a challenge, for several reasons:

- Demand for bandwidth is escalating, as branches automate and mobile-enable business functions to compete in the market.
- Network access options may be limited, and may not be consistent across all branches.
- Branch locations have limited or no on-site IT technical support to implement or manage infrastructure.

Such challenges can prevent branches from successfully implementing the enhancements they need to compete effectively in the digital era. However, the right investment in network solutions can help deliver the latest applications and technologies to even the most remote branch.

### Five Things to Keep in Mind as You Implement Your Branch Network Solutions

#### 1. Application performance is a function of network performance.

In a hybrid world, application code and data bases may be split across different data centers and deployment models. In fact, what the user experiences as an “application” may well be a combination of premises- and cloud-based workloads, microservices, and serverless code, which only come together in the browser on the user's mobile device. Whenever networks introduce delay or inconsistent packet delivery during transmission, the user has a poor application experience—resulting in customer or employee dissatisfaction, productivity reduction, and even revenue loss. The challenge is that performance-impacting issues can be introduced at any leg of the network transmission; e.g., the provider's core network, the “last mile” access loop, or even your wired or wireless LAN.

**Recommendation:** Be sure you have sufficient bandwidth and Quality of Service to meet user expectations for application performance. Remember that users don't care which part of the network is to blame for the problem; they just know their application isn't working properly. The right network management solution will enable you to view and manage the application performance end-to-end, across the WAN and LAN.

## 2. Mobile devices reign supreme, and Wi-Fi is table stakes.

No matter what industry you are in, customers and employees are increasingly interacting with businesses via mobile devices. In distributed businesses that serve consumers—including restaurants, convenience stores, gas stations—customers expect Wi-Fi service as part of the experience; preferably, at no charge. And with video-rich mobile applications chewing up escalating amounts of bandwidth, the distributed enterprise is challenged to supply sufficient wireless capacity to meet customer and employee needs.

**Recommendation:** Your wireless LAN is likely serving several business goals: it may be a source of customer satisfaction; a means for employees to do their jobs; and perhaps even a marketing vehicle, when used to deliver targeted messages to customers' smartphones. Be sure you not only provide sufficient bandwidth, but you allocate it appropriately so that customer applications aren't contending with your point of sale system.

## 3. High availability must be engineered into the network, not just the data center.

You likely have a comprehensive and compliant backup and recovery program for the data that is collected and processed in the branches, as well as for the critical business applications used by branch employees. But what is the impact on your business if a backhoe slices a network circuit down the street? Or a storm wipes out a cell tower? If you can't afford to lose access to applications, then you need to configure your network solution to be resilient.

**Recommendation:** Incorporate network diversity into every branch, with sufficient bandwidth in both A and B circuits to support the most business-critical applications. Be sure to test your solution regularly to ensure that application performance is adequate to keep the business running.

## 4. Focus on cost-efficiency, not cost reduction.

Network rates continue to drop in many metro areas, as carriers expand their rollouts of cost-effective Ethernet services. But remote branches may have fewer carrier and technology options to choose from. As bandwidth demands increase, the branch network budget may appear to be spiraling out of control, making investments in upgrades less likely to be approved.

**Recommendation:** Network isn't an overhead expense; it's an investment in your branch business operations. You can easily build a business case to support the need to implement next-generation branch networking solutions. With the right solution, you will manage available bandwidth more efficiently, thus maximizing return on investment.

## 5. You can't manage what you can't measure.

Peter Drucker's words could have been written for branch networking solutions. Too many distributed enterprises have limited visibility into how their branches utilize networks; in fact, decentralized decision-making is common, with local managers selecting the carrier and network type. As a result, neither headquarters nor the branch is leveraging valuable data generated from network usage.

**Recommendation:** Implement a branch networking solution that can provide end-to-end visibility into application usage, across multiple carriers and technology types. The right solution includes analytics functionality to derive business insights, and to offer predictions based on usage data. The solution can also recommend efficiencies that will drive costs out of the business.

## CONCLUSION

Distributed enterprises cannot succeed unless all branches are transformed into digital businesses. Each branch must be equipped to support applications and technologies that deliver on business goals such as customer satisfaction and employee productivity. And that requires an effective network strategy and the tools to implement and manage it. Thus, the path to success for your distributed enterprise starts with the right branch networking solution.

### **Lynda Stadtmueller**

Vice President – Cloud Services

Stratecast | Frost & Sullivan

[lstadtmueller@stratecast.com](mailto:lstadtmueller@stratecast.com)

For a replay of the webinar, *How your Choice of Branch Networking Solution Impacts Application Performance*, presented by Frost & Sullivan, CompuCom, and Aruba, or to sign up for future webinars in the Hybrid Cloud Exploration series, click [here](#).

For information on how CompuCom and Aruba can help you optimize your hybrid cloud, visit <http://compucom.com/services/cloud-solutions>.

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**Silicon Valley**  
3211 Scott Blvd  
Santa Clara CA, 95054  
Tel: 650.475.4500  
Fax: 650.475.1571

**San Antonio**  
7550 West Interstate 10, Suite 400  
San Antonio, Texas 78229-5616  
Tel 210.348.1000  
Fax 210.348.1003

**London**  
4, Grosvenor Gardens,  
London SW1W 0DH, UK  
Tel 44(0)20 7730 3438  
Fax 44(0)20 7730 3343

877.GoFrost • [myfrost@frost.com](mailto:myfrost@frost.com)  
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