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CenturyLink®

2015 North American Cloud Company of the Year Award

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50 Years of Growth, Innovation & Leadership

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Background and Company Performance

Industry Challenges

As the end of its first decade approaches, the cloud market continues to grow and evolve at breakneck pace. New entrants pour into the market, seeking to anticipate customer needs, fill product gaps, and capture share of enterprises' cloud investments. In fact, the very definition of "cloud" has shifted, extending beyond leased on-demand Infrastructure as a Service (IaaS) and Software as a Service (SaaS) to encompass a broad range of hardware, software, and middleware resources: compute, storage, and network; third-party hosted and enterprise-managed. For enterprises, what began as tentative steps into the public cloud has now developed into a transformational "hybrid IT" strategy—a new cloud-centric way of aligning IT resources with business needs such as agility, speed-to-market, and cost-containment.

The concepts of "hybrid cloud" and, more broadly, "hybrid IT" have evoked confusion in the marketplace, with enterprises and many providers at diametric odds. According to Stratecast's 2015 Cloud User Survey, fully 90% of US-based IT decision-makers expect their hybrid cloud environments to encompass multiple IT environments and deployment models – including public and private clouds from multiple vendors; hosting services (e.g., co-location and managed hosting); physical and virtual server configurations; even commercial and custom SaaS services. Furthermore, they expect such a hybrid environment to be not just connected, but integrated via a common management platform. Ninety-three percent of respondents say "a single pane of glass to manage all components" is an important driver in the selection of a hybrid cloud partner; 92% look for "visibility into infrastructure usage across components."

Yet, enterprises looking to implement a hybrid IT environment often struggle to find partners who share their vision. Most leading cloud service providers focus only on their own hosted public and private cloud services, which often use proprietary management platforms. Even open standards-based services usually offer limited interoperability across providers. Consistent with this "state of affairs" in the management of hybrid IT environments, IT decision-makers included in the Stratecast survey cited "managing multiple cloud and SaaS providers" and "integrating premises-based and cloud environments" among the top challenges they face in implementing a cloud strategy.

Within this context, Stratecast determined that the best candidate for our annual Cloud Company of the Year recognition is one that has stepped beyond the infrastructure-focused view espoused by most cloud service providers, and instead is changing the conversation in a way that truly benefits enterprises. For its integrated portfolio of managed cloud and hybrid IT services, Stratecast recognizes CenturyLink as its 2015 Cloud Company of the Year.

Visionary Innovation & Performance and Customer Impact

The following criteria were considered in recognizing CenturyLink's leadership.

Addressing Unmet Needs

The cloud market is evolving, and enterprises are struggling with cloud services that are inadequate to support their evolving needs, both in breadth (the diversity of environments supported) and in depth (degree of integration, automation, and visibility).

Most cloud service providers are responding to changing needs by looking inward, layering platforms and APIs onto their own infrastructure as a way to lock-in users and partners.

In contrast, CenturyLink has differentiated its cloud platform by looking to deliver full-service enterprise solutions that are largely abstracted from the underlying infrastructure. CenturyLink delivers hybrid IT, defined as "content" (provided by a variety of providers via multiple service and software models, over a range of network and IT infrastructure options) plus "process" (supported by CenturyLink technology and expert technicians).

Central to the hybrid IT solution is the CenturyLink Cloud platform, which is designed to support management and orchestration capabilities up the cloud stack (IaaS, PaaS, and even some commercial SaaS), as well as across various deployment models and environments, which include CenturyLink's own portfolio of cloud, co-lo, network, and managed services, as well as APIs that extend functionality to a growing list of third-party software and cloud infrastructure.

Visionary Scenarios through Mega Trends

In the rapid-paced world of technology, successful businesses are those that institutionalize innovation; that is, they build their strategies and products to embrace new ideas. CenturyLink has done this in several ways. First, the company's aggressive acquisition strategy has enabled it to quickly expand its cloud portfolio to anticipate customer needs. For example, the AppFog acquisition allowed CenturyLink to address the burgeoning interest in open source Platform as a Service (PaaS), specifically Cloud Foundry. Tier 3 provided the next-generation flexible cloud platform, which is the key market differentiator for CenturyLink's cloud services. The DataGardens and Cognilytics acquisitions support CenturyLink's move up the cloud stack with value-added applications and services. The recent acquisition of Orchestrate rounds out the CenturyLink portfolio with a fully managed NoSQL cloud database service. Because the company's strategy calls for rapid integration of acquired products and processes onto the CenturyLink Cloud Platform, the new capabilities are quickly brought to market.

Secondly, CenturyLink has embraced the trend toward "software-defined" technology, building cloud-based intelligent platforms that are automated, programmable, and self-service. By investing in software platforms to perform IT functions, CenturyLink can offer

"anywhere services"—allowing customers to deploy selected CenturyLink managed services on a range of cloud infrastructure, including hyperscale providers like Amazon Web Services and Microsoft Azure. This flexibility is not only of value to customers, but also key to CenturyLink's ability to add services in the future. The software-defined approach may even play a role in the company's future infrastructure strategy; in light of CenturyLink's recent announcement that it is exploring "strategic options" for its data center assets and co-location business, the company appears to be signaling that it does not need to own the physical infrastructure to provide an end-to-end service.

Implementation Best Practices

CenturyLink has excelled at integrating its acquired companies and their cloud services into the common CenturyLink Cloud Platform. To facilitate technical integration, the company has reorganized its technical teams around a "DevOps" (Development and Operations) framework for application development and deployment. The company said it doubled its engineering staff, launched new teams responsible for platform automation, capacity management, analytics, user experience, and customer satisfaction. To facilitate a better understanding of the newly-integrated hybrid IT solution and deliver a common voice to customers, field sales teams were sent to cross-training "boot camps" and monthly "Ask the Experts" sessions.

As a result, CenturyLink is able to quickly leverage its acquisitions to offer a more integrated and seamless user experience. Furthermore, the established framework ensures that future acquisitions can also be quickly integrated.

Customer Purchase Experience

CenturyLink's managed private cloud is available across 57 of its data centers and is hosted in an isolated environment separate from public cloud. Furthermore, the company has reengineered its managed services delivery platform to speed up the ordering and set-up process. The service is available as self-service capacity on public and private clouds and is billed in a pay-as-you-go model, with no long term commitment or contracts.

The CenturyLink Cloud is designed for ease of purchase and deployment. To encourage businesses to "try out" the model, the company offers a free trial, including onboarding services. In addition, to support businesses' desire to control costs and purchase only the capacity they need, the CenturyLink cloud platform provides an easy-to-use online calculator that provides visibility into costs and usage in real-time.

Customer Ownership Experience

Recognizing that technology decisions of the future will no longer be restricted to IT staff, CenturyLink has developed its services to address the needs of multiple constituents.

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- **Developers** represent a sizeable percentage of cloud users, as businesses look to increase speed-to-market of new and enhanced technologies. The CenturyLink platform is fully programmable, providing developers the tools they need to build and deploy applications and APIs. This year, CenturyLink introduced an enhanced, platform-integrated version of the Cloud Foundry-based AppFog PaaS, with integrated identity management functionality. Software development kits (SDKs) were also developed.

- **Line-of-Business (LoB) employees** will take greater ownership of technology purchases and usage in the future, with IT no longer acting as technology gatekeepers but as enablers. To support the influential LoB user group, CenturyLink has re-designed its user interface to be simple enough for non-technical users, as well as technical employees, to access the technology and reports they need. Additional management functions that appeal to LoBs include user-defined subaccounts, which allow departments or workgroups to manage, track, and measure groups of specified VMs.

- **IT departments** are embracing their new role as a service provider to the business, which requires them to maintain real-time insight into IT costs and capacity utilization to support smart decision-making. The CenturyLink Cloud Control Portal offers role-based access to granular data regarding costs and infrastructure utilization.

In the degree to which it anticipates and responds to the needs of its various user populations, CenturyLink provides a superior cloud service to competitive services.

Customer Service Experience

A key tenet of the cloud model is self-service, which is largely enabled through high levels of automation. As a result, many cloud service providers are investing in self-service platforms rather than deploying teams of technicians to provide customer support. However, businesses are finding they require expert assistance to offset their lack of on-staff cloud expertise. In fact, in citing the top challenges to implementing a cloud strategy, 25% of respondents to the Frost & Sullivan Cloud User Survey said they have insufficient on-staff expertise; 25% cited "assessing the optimal model for workloads"; and fully 28% named "migrating applications."

To address these challenges and smooth the path to a hybrid IT environment, CenturyLink complements its sophisticated cloud platform with a range of managed and professional services. These include the innovative "QuickStart Cloud Onboarding Services," which offer formal planning and implementation sessions; access to technicians; training on the platform for administrators and end users; and assistance in migration and deployment of software.

In addition, cloud customers have access to optional tiered technical support services, priced as a percentage of monthly usage.

Conclusion

CenturyLink's "hybrid IT" portfolio moves beyond public cloud, and meets the needs of the next generation of technical and line-of-business cloud users for highly automated, efficient, reliable, and flexible IT resources. Anchored by the highly sophisticated and comprehensive CenturyLink Cloud Platform, the hybrid IT strategy enables businesses to optimally support multiple environments and deployment models.

With its strong overall performance, CenturyLink has earned Frost & Sullivan's 2015 Cloud Company of the Year Award.

Significance of Company of the Year

To win the Company of the Year award (i.e., to be recognized as a leader not only in your industry, but among your non-industry peers as well) requires a company to demonstrate excellence in growth, innovation, and leadership. This kind of excellence typically translates into superior performance in three key areas: demand generation, brand development, and competitive positioning. These areas serve as the foundation of a company's future success and prepare it to deliver on the two criteria that define the Company of the Year Award (Visionary Innovation & Performance and Customer Impact).

Understanding Company of the Year

As discussed above, driving demand, brand strength, and competitive differentiation all play a critical role in delivering unique value to customers. This three-fold focus, however, must ideally be complemented by an equally rigorous focus on visionary innovation to enhance customer value and impact.

Key Benchmarking Criteria

For the Company of the Year Award, Frost & Sullivan analysts independently evaluated two key factors—Visionary Innovation & Performance and Customer Impact—according to the criteria identified below.

Visionary Innovation & Performance
        Criterion 1: Addressing Unmet Needs
        Criterion 2: Visionary Scenarios Through Mega Trends
        Criterion 3: Implementation Best Practices
        Criterion 4: Blue Ocean Strategy
   Criterion 5: Financial Performance

Customer Impact
        Criterion 1: Price/Performance Value
        Criterion 2: Customer Purchase Experience
        Criterion 3: Customer Ownership Experience
        Criterion 4: Customer Service Experience
        Criterion 5: Brand Equity

Best Practice Award Analysis for CenturyLink

Decision Support Scorecard

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Scorecard. This tool allows our research and consulting teams to objectively analyze performance, according to the key benchmarking criteria listed in the previous section, and to assign ratings on that basis. The tool follows a 10-point scale that allows for nuances in performance evaluation; ratings guidelines are illustrated below.

RATINGS GUIDELINES

9–10 Excellent

7–8 Good

4–6 Fair

1–3 Poor
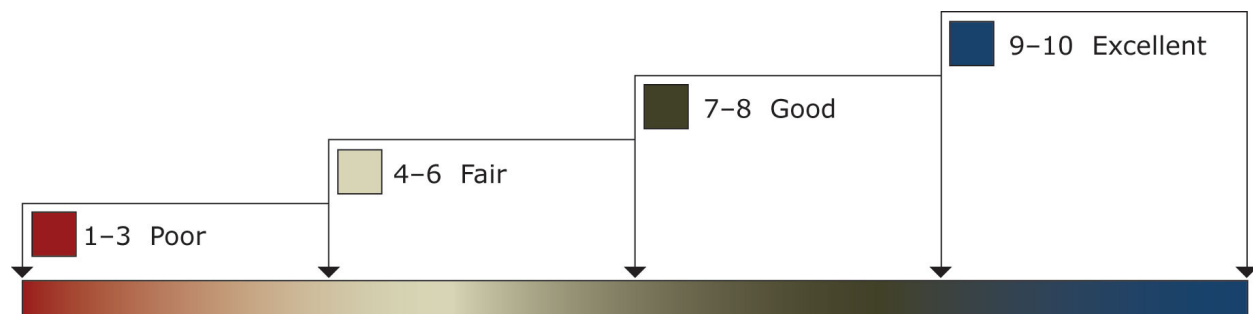
The Decision Support Scorecard is organized by Visionary Innovation & Performance and Customer Impact (i.e., the overarching categories for all 10 benchmarking criteria; the definitions for each criteria are provided beneath the scorecard). The research team confirms the veracity of this weighted scorecard through sensitivity analysis, which confirms that small changes to the ratings for a specific criterion do not lead to a significant change in the overall relative rankings of the companies.

The results of this analysis are shown below. To remain unbiased and to protect the interests of all organizations reviewed, we have chosen to refer to the other key players as Competitor 2 and Competitor 3.

DECISION SUPPORT SCORECARD FOR COMPANY OF THE YEAR AWARD

Measurement of 1–10 (1 = poor; 10 = excellent)			
Company of the Year	Visionary Innovation & Performance	Customer Impact	**Average Rating**
CenturyLink	**10**	**9**	**9.5**
Competitor 2	9	8	8.5
Competitor 3	7	7	7.0

Visionary Innovation & Performance

Criterion 1: Addressing Unmet Needs
Requirement: Implementing a robust process to continuously unearth customers' unmet or under-served needs, and creating the products or solutions to address them effectively

Criterion 2: Visionary Scenarios Through Mega Trends
Requirement: Incorporating long-range, macro-level scenarios into the innovation strategy, thereby enabling "first to market" growth opportunities solutions

Criterion 4: Implementation of Best Practices
Requirement: Best-in-class strategy implementation characterized by processes, tools, or activities that generate a consistent and repeatable level of success.

Criterion 3: Blue Ocean Strategy
Requirement: Strategic focus in creating a leadership position in a potentially "uncontested" market space, manifested by stiff barriers to entry for competitors

Criterion 5: Financial Performance
Requirement: Strong overall business performance in terms of revenues, revenue growth, operating margin and other key financial metrics

Customer Impact

Criterion 1: Price/Performance Value
Requirement: Products or services offer the best value for the price, compared to similar offerings in the market

Criterion 2: Customer Purchase Experience
Requirement: Customers feel like they are buying the most optimal solution that addresses both their unique needs and their unique constraints

Criterion 3: Customer Ownership Experience
Requirement: Customers are proud to own the company's product or service, and have a positive experience throughout the life of the product or service

Criterion 4: Customer Service Experience
Requirement: Customer service is accessible, fast, stress-free, and of high quality

Criterion 5: Brand Equity
Requirement: Customers have a positive view of the brand and exhibit high brand loyalty

Decision Support Matrix

Once all companies have been evaluated according to the Decision Support Scorecard, analysts can then position the candidates on the matrix shown below, enabling them to visualize which companies are truly breakthrough and which ones are not yet operating at best-in-class levels.

DECISION SUPPORT MATRIX FOR COMPANY OF THE YEAR AWARD
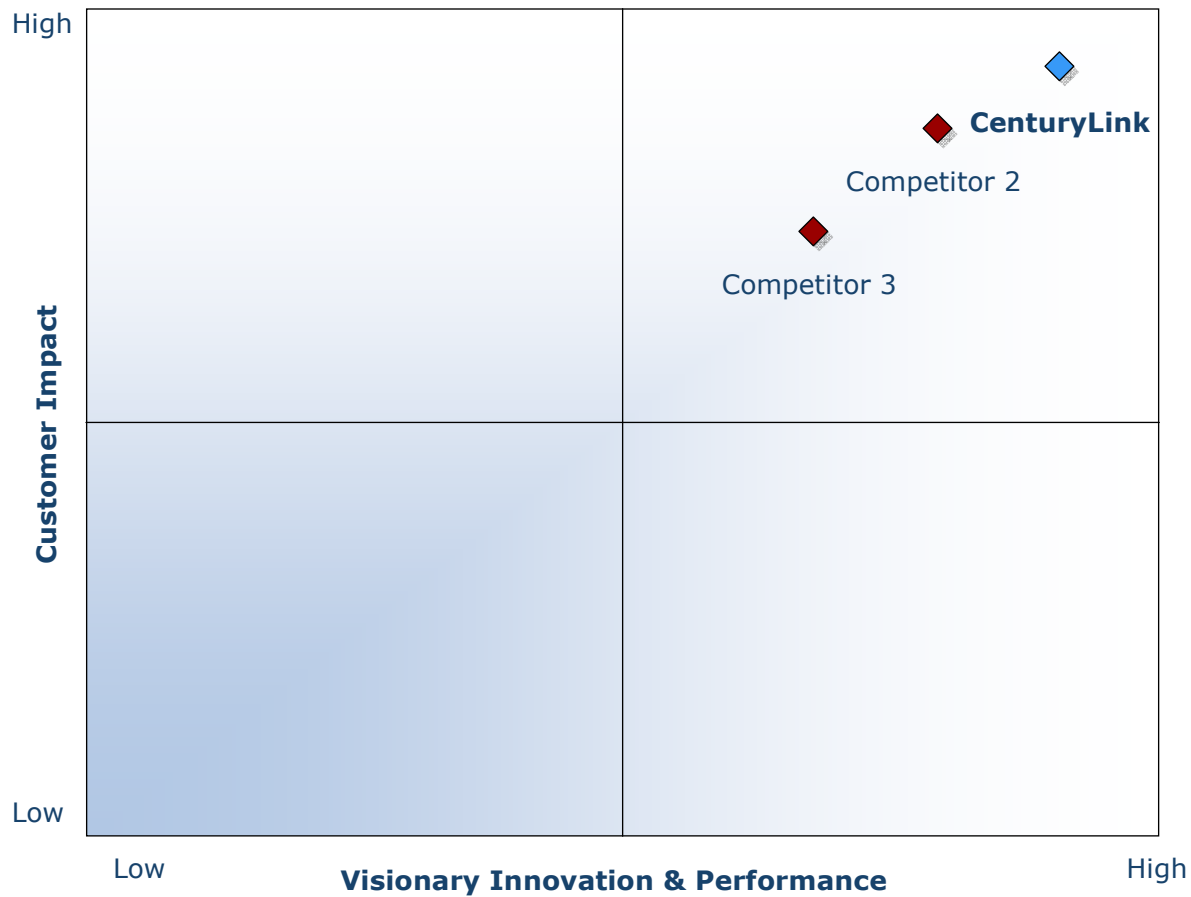
The Intersection between 360-Degree Research and Best Practices Awards

Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of our research process. It offers a 360-degree-view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies. Too often, companies make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry players and for identifying those performing at best-in-class levels.

360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS

Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan Awards follow a 10-step process to evaluate award candidates and assess their fit with select best practice criteria. The reputation and integrity of the Awards are based on close adherence to this process.

STEP		OBJECTIVE	KEY ACTIVITIES	OUTPUT
1	**Monitor, target, and screen**	Identify award recipient candidates from around the globe	• Conduct in-depth industry research • Identify emerging sectors • Scan multiple geographies	Pipeline of candidates who potentially meet all best-practice criteria
2	**Perform 360-degree research**	Perform comprehensive, 360-degree research on all candidates in the pipeline	• Interview thought leaders and industry practitioners • Assess candidates' fit with best-practice criteria • Rank all candidates	Matrix positioning all candidates' performance relative to one another
3	**Invite thought leadership in best practices**	Perform in-depth examination of all candidates	• Confirm best-practice criteria • Examine eligibility of all candidates • Identify any information gaps	Detailed profiles of all ranked candidates
4	**Initiate research director review**	Conduct an unbiased evaluation of all candidate profiles	• Brainstorm ranking options • Invite multiple perspectives on candidates' performance • Update candidate profiles	Final prioritization of all eligible candidates and companion best-practice positioning paper
5	**Assemble panel of industry experts**	Present findings to an expert panel of industry thought leaders	• Share findings • Strengthen cases for candidate eligibility • Prioritize candidates	Refined list of prioritized award candidates
6	**Conduct global industry review**	Build consensus on award candidates' eligibility	• Hold global team meeting to review all candidates • Pressure-test fit with criteria • Confirm inclusion of all eligible candidates	Final list of eligible award candidates, representing success stories worldwide
7	**Perform quality check**	Develop official award consideration materials	• Perform final performance benchmarking activities • Write nominations • Perform quality review	High-quality, accurate, and creative presentation of nominees' successes
8	**Reconnect with panel of industry experts**	Finalize the selection of the best-practice award recipient	• Review analysis with panel • Build consensus • Select winner	Decision on which company performs best against all best-practice criteria
9	**Communicate recognition**	Inform award recipient of award recognition	• Present award to the CEO • Inspire the organization for continued success • Celebrate the recipient's performance	Announcement of award and plan for how recipient can use the award to enhance the brand
10	**Take strategic action**	Once licensed, company may share award news with stakeholders and customers	• Coordinate media outreach • Design a marketing plan • Assess award's role in future strategic planning	Widespread awareness of recipient's award status among investors, media personnel, and employees

About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best in class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages almost 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from 31 offices on six continents. To join our Growth Partnership, please visit http://www.frost.com.