

VENDOR PROFILE

Cognizant 2.0: Leveraging Web 2.0 Technologies for Driving Innovation in Offshore Delivery

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IDC OPINION

Cognizant Technology Solutions' (Cognizant's) Cognizant 2.0, or C2, ecosystem is the result of fine-tuned orchestration between tools, technologies, processes, and personnel to drive productivity, efficiency, improved customer satisfaction resulting in a stronger competitive position for Cognizant in the offshore services market.

- ☒ Three key success factors in favor of Cognizant success are its "born global" philosophy, Two-in-a-Box client-relationship model, and C2. While the "born global" philosophy differentiates Cognizant from its India peers in the market, its client-relationship model layers strong stress on customer satisfaction. These, layered with its virtual ecosystem for collaborative project and knowledge management, give Cognizant a competitive position in the market.
- ☒ IDC believes C2 is not a "generation next" rather a "generation now" ecosystem. The prevailing market environment presents an opportune time for IT service providers (SPs) to leverage collaborative tools and technologies toward driving innovation in delivery and customer management. As businesses are looking to recover from the effects of the global economic slowdown, there is an inherent need to leverage innovative tools from third-party SPs that can help them lower operational costs and have better control n projects and related budgets.
- ☒ C2 is a "game-changer" for Cognizant as it shifts the competitive field from labor arbitrage to intellectual arbitrage — that too irrespective of geographic location. This greatly benefits Cognizant's position in the global services space.
- ☒ Key benefits that C2 brings to Cognizant include: improved client servicing, stronger global delivery models, improved process compliance, consistent quality in deliverables as well as client experience, and improvement in efficiency levels.
- ☒ C2 is not only an ecosystem resulting from the creation of a collaborative knowledge management environment, rather it is a process-oriented tool that can deliver business outcomes–based results by aligning delivery of IT services with business goals and objectives.

IN THIS VENDOR PROFILE

This IDC Vendor Profile analyzes Cognizant Technology Solutions' (Cognizant's) Web 2.0 and unified communications (UC)/collaboration-enabled ecosystem termed as Cognizant 2.0, or C2. IDC analyzes the environment's features, functionalities, and capabilities with the objective to understand its key success factors as well as investment and improvement areas.

The analytical opinion reflected in this study is based on inputs from the following sources:

- Live demonstration of C2 and discussion at Cognizant's delivery center
- Discussions with end users and developers of C2
- Review of Cognizant's key wins, press releases, corporate announcements, and financial performance for 2009 (year-to-date)
- IDC's worldwide research on adoption of Web 2.0 technologies
- IDC *Asia/Pacific's IT Services End-User Survey* (carried out in March 2009 across 10 countries with over 1,000 respondent organizations)
- Ongoing competitive research for major IT SPs in the Asia/Pacific (excluding Japan), or APEJ, region

All these resources were coupled with IDC Asia/Pacific's ongoing coverage of key SPs in the APEJ region, as well as trends in technology evolution.

SITUATION OVERVIEW

Introduction

As businesses globally are working toward emerging from the financial and economic crisis over the past 12 months, there are two key trends. First, outsourcing projects are becoming increasingly complex and there is a strong move toward transformation initiatives. Second, customers are asking SPs to showcase innovation and flexibility in pricing (total cost of ownership [TCO]), service-level agreements (SLAs)/accountability, and service delivery.

While pricing models and accountability can be tied to contract terms and conditions, as well as risk appetite of IT SPs, when it comes to innovation in service delivery, the competitive environment gets increasingly complex. This is because each SP needs to leverage its strengths and capabilities, based on respective service portfolio and target markets, to drive innovation. This exercise becomes more difficult for outsourced services that involve global resources, multiple delivery centers, and a broad spread across technology solutions and industry verticals. Moreover, innovation cannot happen overnight, it has to go from conceptualization to adoption and offer business value to the end client.

Bracing against the economic slowdown, Cognizant is one of the top 5 India-centric IT SPs that have achieved a strong level of success in the face of economic slowdown; in Cognizant's case, this is driven by innovation in its delivery model through its intellectual property (IP) — C2.

Company Overview

Cognizant was formed as the in-house technology center for the Dun & Bradstreet Corporation in 1994 and was later formed into an independent company as Cognizant Technology Solutions. Based out of Teaneck (New Jersey) in the United States, Cognizant has grown to one of the top 5 India-centric IT SPs with over 50 global delivery centers and more than 64,000 associates (as of June 30, 2009). Cognizant credits its "born global heritage" as a key market advantage that has led the company to be a preferred global services partner for businesses across industries. Cognizant's Two-in-a-Box client-relationship model (i.e., combining technical and account management teams located onsite with global development centers) is positioned to offer greater customer intimacy, speed of delivery, local decision making, and improved responsiveness to client needs. Fueling Cognizant's success and growth is its in-house developed C2 collaborative delivery ecosystem, which has helped the SP grow from strength to strength.

TABLE 1

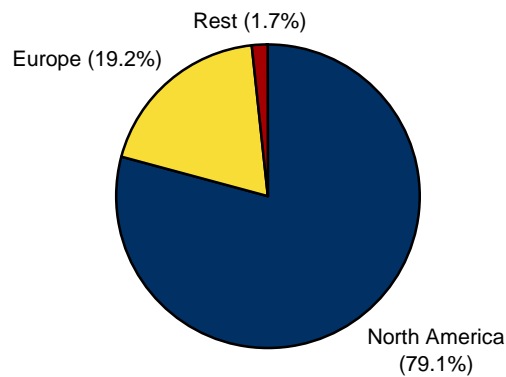
Cognizant: Firm Profile

Number of employees	64,100
Number of clients	569
Revenue (FY08)	US\$2.816 billion
Net income (FY08)	US\$430.8 million
Headquarters	Teaneck, New Jersey, United States
Year founded	1994

Source: IDC, 2009

FIGURE 1

Company Overview: Cognizant, Revenue Split by Geography (FY08)

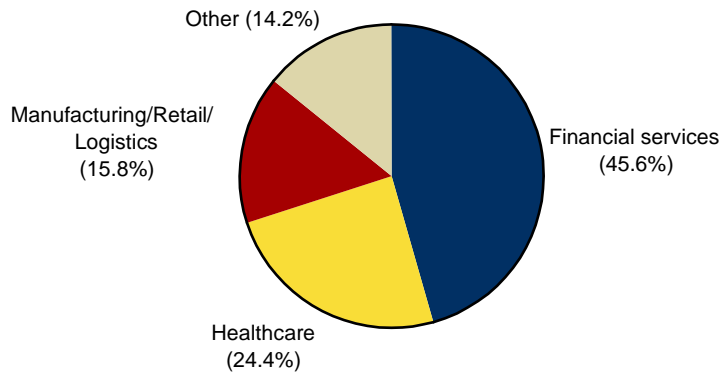


Note: Annual revenue (FY08) = US\$2.816 billion

Source: IDC, 2009

FIGURE 2

Company Overview: Cognizant, Revenue Split by Industry Vertical (FY08)



Notes:

- Annual revenue (FY08) = US\$2.816 billion
- Other geographies include: Asia/Pacific/Middle East and South America.

Source: IDC, 2009

For its second quarter of earnings (quarter ended June 30, 2009), Cognizant's revenues were up 4% quarter over quarter (QoQ) and by 13% on a year-over-year (YoY) basis. Due to the increased level of traction in its core markets, Cognizant increased its revenue guidance by US\$40 million, for 2009, expecting annual revenues of at least US\$3.14 billion for CY09, which results in an annual YoY growth expectation of 11.5%. While the macroeconomic environment continues to be weak, Cognizant has witnessed stable demand for business and IT services as clients have moved forward to implement erstwhile delayed projects. Here, Cognizant has witnessed increased demand from its clients for projects focused on cost-containment and improving operational effectiveness

Company Strategy

Given the overall market environment, Cognizant has decided to focus on the following key areas:

- ☒ The first area of focus and investment for the company is to continue building its C2 ecosystem. Cognizant states that "online virtual workspace has improved our operations significantly and underpins the strength of our global delivery model."
- ☒ Second, Cognizant continues to strengthen its Two-in-a-Box client engagement model. Facilitating this, Cognizant has approximately 750 account managers and client partners. Given the success this strategy has borne for Cognizant, the company intends to continue its investment in front-end client relations, rather than pulling back in the face of economic slowdown.
- ☒ Third, Cognizant is considering to focus on new geographies. Given that the U.S. market accounts for approximately 80% of Cognizant's global revenue, the company is looking to diversify its revenue split by gaining better traction in Europe, Latin America, Middle East, and Asia markets (including India).
- ☒ Last, from a services perspective, Cognizant is looking to strengthen its business consulting, business/knowledge process outsourcing (BP/KPO), and IT infrastructure services and industry solutions practices. Cognizant Business Consulting (CBC) practice has experienced continued success and has become a key component of Cognizant's strategic agenda. The SP has rightly realized that providing offshore capabilities is not enough, and the optimal alignment of business expertise with technical experience will greatly improve Cognizant's competitive position in global markets.

C2 is Cognizant's primary focus area and is also the basis and key facilitator for Cognizant's other three investment areas, namely, client engagement, global delivery, and service enhancement.

Cognizant 2.0

What Is C2?

Cognizant defines C2 as an "intelligent delivery ecosystem where knowledge assets are contextually embedded to well-coded atomic level business processes that enable seamless work execution by global teams operating in a real-time environment." Moreover, its objective is to enable stakeholders in Cognizant's worldwide business environment to virtually collaborate and capture knowledge, leveraging collective wisdom.

C2 is an ecosystem that encompasses three basic aspects, namely, processes, people, and knowledge objects to create a unified platform where structured processes can be leveraged by teams of people for knowledge access and creation — at the right time. What enhances C2's position is the level of intricate meshing and miniaturization of the aforementioned three basic aspects into templates and artifacts (or knowledge assets) that can help teams deliver on microprocesses, irrespective of geographic presence. This enables the ecosystem to enhance global delivery through consistency and predictability.

Launched in October 2007, C2 is currently the de facto global delivery and collaboration platform across Cognizant's global delivery centers. Cognizant has invested over US\$10 million in analyst hours (over 300 personnel assigned to its development and maintenance), application tools, and infrastructure to build C2 at its current level. This initiative is directly driven and monitored by CXOs at Cognizant including involvement from the CEO and CKO.

Essentially, C2 has two parts:

- ☒ First, a high-powered knowledge management system, made possible by Web 2.0 technologies that can filter both structured and unstructured data to enable Cognizant to tap into the best thinking (e.g., how to handle a specific aspect of a project) by capitalizing on best practices and the know-how of domain experts across the globe. The ability to get relevant expertise just-in-time and within the context of a project task enables Cognizant to improve efficiency levels.

- ☒ Second, a standardized project and workflow management system that facilitates collaboration and automatically coordinates complex and dynamically changing global projects. With C2's embedded delivery management system, necessary process templates, samples, and best practices are pushed to the project manager on program initiation, in an industry-specific or technology-specific area. This ensures a predictable, repeatable, and reliable way to produce the project's master plan, thereby assuring best practices are followed with each new engagement.

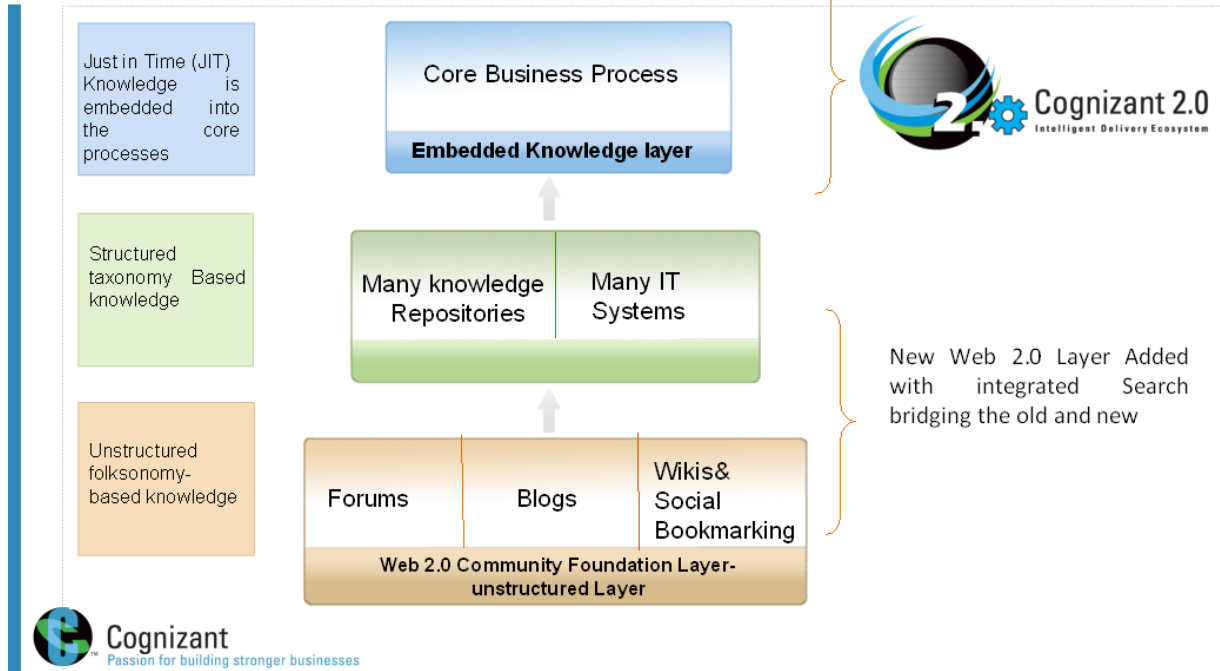
As a result, C2 provides an integrated platform empowering people (software engineers, project managers, partner representatives, and clients) to collaborate among themselves to ensure delivery of desired results. This integrated platform is taken to the next level by incorporating "unstructured knowledge" through blogs and wikis with the collaboration platform itself. Inputs from these unstructured resources are closely monitored and qualitatively reviewed to avoid any "false-positives." Placing these features across knowledge management, process orientation collaboration, and people empowerment into the prevailing context of service delivery for business outcome brings out the true value of C2. Key applications used to build C2 include MS SharePoint, MS Projects, and proprietary Cognizant applications built on Web 2.0 technologies. Key metrics for C2 include:

- ☒ There are approximately 64,100 associates linked online for collaboration through blogs, wikis, and forums, resulting in more than 5 million page views per month.
- ☒ C2 supports over 10,800 unique active bloggers and participants that generate approximately 2,500 posts each month.
- ☒ The forums cumulatively contain more than 10,000 business queries and continue to grow by 500 additions each month.
- ☒ The technical community has more than 135,000 posts with approximately 1,500 queries added each month.
- ☒ There are more than 4,000 unique documented learning, assets, and case studies, which have been qualitatively reviewed and approved by key technology leads and business heads.

FIGURE 2

Knowledge Management Model at Cognizant

Overall Vision



Source: Cognizant Technology Solutions, 2009

Key Features and Functionalities

The objective behind C2 is to closely integrate work execution, collaboration, and knowledge management with global delivery capabilities across application life-cycle projects. By enabling collaboration within its business ecosystem, Cognizant has done well to eliminate challenges that come with geographical distance and managing a diverse workforce.

Key features of the C2 ecosystem include:

- ☒ In C2, processes guidance is integrated with delivery within an execution environment. This helps associates maintain project quality with adherence to templates, procedures, and checklists. The online repository of knowledge assets (i.e., regularly updated artifacts, best practice documents, templates, and case studies available to all Cognizant associates) enables quick project initiation with the right set of tools. To enable this, knowledge assets, artifacts, and deliverables provided within an execution environment are linked to the task while the team is empowered to make better decision through the interlinks.
- ☒ Real-time governance is enabled as C2 platform automatically captures metrics at the point of task. Online status checks are available to project managers across multiple assignments for each project task with availability and utilization data of resource groups, as well as individuals. This helps project managers maintain project quality, project budgets, as well as adherence to delivery timelines. C2 allows real-time governance at project and task levels, across multiple stakeholder organizations and business units that are involved in enabling global delivery.
- ☒ The integration of C2 with Microsoft Exchange, Microsoft SharePoint, and Instant Messaging tools leverages the benefits of presence-aware UC and collaboration environment. Therefore, irrespective of geographical location, project teams are able to initiate, execute, monitor, and deliver assignments.
- ☒ Integrated Web 2.0 environment, as part of project execution platform, enables collaboration with the C2 environment by connecting to the right virtual community of experts. This enables project associates to troubleshoot in real time and lead to a faster resolution time in any project issues.
- ☒ C2 can offer secure access to client representatives and alliance partners on specific project assignments. This enables Cognizant to leverage the knowledge base of its key partners on complex projects while giving the client visibility to the project flow, as well as real-time access in achieving specific milestones. In some instances, Cognizant has been successful in deploying C2 agents within the customers' environment.
- ☒ C2 features an "Ask George" tool that enables Cognizant associates to post queries on technical issues, emerging best practices, and individual knowledge growth queries, which are addressed by relevant technology and practice leads.

- ☒ C2 is backed up by a strong governance and monitoring team that overviews the utilization and performance of the C2 ecosystem. This team reviews unstructured information presented and qualitatively reviews it to a structured knowledge format based on Cognizant's taxonomy. This monitoring team also ensures queries raised within the system are quickly resolved by the appropriate team of experts.

Process Flow Using C2

A key feature of C2 is the user-friendly nature and automation of the platform that improves the efficiency level of associates irrespective of geographic location and technical space. Typical workflow process using C2 is as follows:

- ☒ First, the project manager, or an associate, enters project details into the C2 system. Once the project details are entered, the system suggests the most-suited process flow based on the information entered. The appointed project manager can use the suggested process and its template to initiate his/her assignment.
- ☒ In the event of writing a new process, relevant guidelines, checklists, and samples (including recommended codes for application development assignments) are included at the project kickoff stage.
- ☒ In selecting the process template, key steps are automatically uploaded by the system to ensure that the assigned project manager does not exclude any process elements. Postcompletion of process layout, the project manager moves to allocate resources for the tasks and uploads/synchronizes details onto the server.
- ☒ Once synchronized with the system, the resources selected by the project manager receive allocated functions on their individual "Team Space," along with the relevant artifacts for each task assigned to them.
- ☒ In the project management stage, the project manager and assigned module leads have access to real-time reports from within their respective work environments.

Key Benefits

With its blend of collaboration tools, coupled with structured processes and utilization of UC systems for just-in-time knowledge, C2 is well placed as a competitive differentiator for Cognizant. C2's benefits extend beyond Cognizant's internal environment to encompass customers and partners alike. In addition, these benefits are at various levels. Key benefits of C2 are:

- ☒ **Improved client servicing:** By leveraging C2, Cognizant is able to offer its global clientele high-quality delivery and efficiency for its projects through its global delivery engagement model. C2 enhances Cognizant's ability to offer pricing and delivery flexibility and to address challenges arising from complexity in global projects. In addition, through C2, clients get an expanded delivery engine that comprises of global knowledge management, component-based development library with reusable assets, and an orchestration platform based on workflow and rules.
- ☒ **Stronger global delivery framework:** C2 provides clients with a good platform for global delivery governance that is supported by automated capture of process conformance, organization-specific views, metrics/goals, and scorecard definitions. This, coupled with compliance monitoring across the project life cycle, provides improved visibility of project status and performance — which in turn increases the capability benchmarks for Cognizant as an organization
- ☒ **Improved governance and compliance:** With C2, project managers can not only closely monitor their assignments but also constantly improve the process flow and avoid human errors. By leveraging the integrated dashboard in C2, Cognizant was able to eliminate approximately 90% of the work involved in case of manual project tracking in projects executed for a financial services customer. In addition, C2 can incorporate clients to be part of the overall delivery ecosystem (relevant to their project) that gives a high level of confidence especially in case of offshore engagements.
- ☒ **Consistent quality:** By virtue of creating reusable knowledge assets and setting up a de facto delivery model, C2 enables consistency in project approach, delivery, and quality. In addition, with high level of visibility to the project flow, C2 improves accuracy and impact of decision making across project stakeholders.
- ☒ **Higher productivity and improved efficiency:** C2 enables reduced effort and time for project execution. The setup time is reduced by leveraging process templates within the system that guide project managers with the process flow and the key elements they must include into the overall workflow. This is supplemented by a host of knowledge assets, which are provided to project resources within context of their individual tasks. This significantly lowers the time to kick off an assignment. In a project for a client in the insurance vertical, Cognizant experienced a 70% reduction in the time taken to create a master project plan. In addition, real-time collaboration among geographically distributed teams facilitates just-in-time knowledge, leading to improved efficiency levels during project execution. Cognizant has observed lower average project cycles.

- ☒ **Constant upgrading of knowledge:** With end-to-end integration of processes, knowledge assets, and work environment, C2 enables associates to stay abreast of the latest technology trends, as well as be up-to-date with new concepts and ideas within the company. More importantly, C2 enables "Right Knowledge" dissemination at the right time through structured as well as emergent knowledge that is embedded into C2's core process and delivery platform. This structured knowledge dissemination will enable Cognizant to build a stronger workforce over the long term.
- ☒ **Employee focus:** C2 enables Cognizant employees to share their knowledge and skills with a wider audience outside their project teams and groups to build a network across multiple divisions. This breaks down hierarchical barriers within the organization and improves work environment.

FUTURE OUTLOOK

Challenges and Opportunities

Given the evolving business environment, C2 has the characteristics of a key deal enabler for Cognizant. While most India-based IT SPs have their in-house tools and systems for project management, C2's distinct characteristic is the level of intricate interweaving of knowledge assets with business processes focused on just-in-time knowledge acquisition by leveraging collaborative tools. Web 2.0 has been a recipient of increased traction for sometime now, and, few businesses, especially IT SPs, have been able to harness the potential of community-based knowledge management as well as Cognizant. Currently, Cognizant claims approximately 20% of the Cognizant workforce postblogs on forums within the C2 ecosystem.

In the immediate future, two key challenges that C2 will be faced with are:

- ☒ **Sustaining the ecosystem:** Already, C2 has accounted for US\$10 million in investments and has over 300 personnel looking after its support, maintenance, and development operations. The ecosystem supports a technical community with over 135,000 posts with approximately 1,500 queries added each month. At this rate, Cognizant will need to continuously invest in its platform and look toward storage management tools that can help sustain the growth of C2. As more partners and customers come on board, C2 investment in security and risk assessment will be paramount. While Cognizant has the available cash flow and inclination to invest to further improve C2 and make it more collaborative, the allocation of 300 revenue-generating resources is a high number.
- ☒ **Taking collaboration toward presence-aware, real-time communication:** Currently, there is limited integration of C2 with the company's overall IP telephony environment, and Cognizant has already made plans to invest in telepresence solutions. In order to leverage the true potential of presence-based collaboration and communication, C2 will need to incorporate fixed/mobile convergence (FMC) and videoconferencing systems for key client engagements. Understandably, this will be a significant cost to the company and therefore a phased implementation route is most suitable.

- ☒ **Innovating constantly:** In order to maintain its distinction in the market and sustain its growth, Cognizant will need to consistently innovate its ecosystem features and infrastructure environment. While there are plans to include additional capabilities, the next big wave of innovation should be in process automation that will lower the resource head count required to run C2. Managing ever-increasing knowledge assets, which is a critical task, also accounts for a significant share of the company's resources.

There is evident opportunity for Cognizant to leverage C2 to strengthen its position in the global IT services landscape. There are few global players in the market that can leverage the strengths and capabilities that C2 brings to the table. Key opportunities for growth of C2 include:

- ☒ **IT infrastructure services (ITIS):** Cognizant has been looking to strengthen its skills and capabilities of its ITIS practice and has been open to exploring the acquisition route to facilitate nonlinear growth. With the recent acquisition of Pepperweed Advisors (the IT consulting services division of Pepperweed Consulting), Cognizant has strengthened its ITIS practice by acquiring strategic consulting capabilities in IT service management (ITSM) and IT asset management (ITAM). Pepperweed's IP includes well-defined IT Infrastructure Library (ITIL)-based processes, tools, and frameworks that would also be included in the C2 framework thereby further strengthening the knowledge asset repository of the ecosystem.
- ☒ **Engineering and testing service:** In July 2009, Cognizant entered into a global product research and development (R&D) alliance with Invensys Operations Management, a global provider of technology systems, software solutions, and consulting services to the process and manufacturing industries. This brings to Cognizant a strong level of knowledge assets across product life-cycle management (PLM), manufacturing operations management (MOM), and enterprise asset management (EAM).

ESSENTIAL GUIDANCE

Advice for (Profiled Vendor)

C2 is a strong proposition from Cognizant, and the SP has the opportunity to leverage C2's functionalities and capabilities to gain a stronger footprint in the offshoring services market. The SP has done well in focusing its innovation efforts toward global delivery and client management.

- ☒ Cognizant needs to fine-tune its marketing message from the benefits of using C2 toward what benefits clients can achieve from leveraging C2. Currently, the client focused messaging is based on three key elements: First, consistency in global delivery with flexibility in delivery models; second, global knowledge management with component-based development library; and third, orchestration platform based on workflow and rules. However, this does not address quantifiable metrics for return on investment (ROI) in dollar terms. IDC has observed an increased level of involvement from CFOs when it comes to purchasing IT services, and it will be beneficial for Cognizant to position improvement on ROI metrics by leveraging C2 to showcase tangible cost savings to its clients.
- ☒ With the acquisition of Pepperweed Advisors and its partnership with Invensys, Cognizant should rapidly deploy the acquired knowledge assets into the C2 ecosystem. With over 400 associates from Invensys coming into the Cognizant fold, the knowledge management initiative at Cognizant will receive a fresh boost.
- ☒ Currently, C2 is positioned as an ecosystem, while this is a suitable positioning platform in the near term, it will be prudent to evolve C2 into an appliance-based tool that can reside within a client's environment. While this is a long-term initiative, if properly executed, it will give Cognizant a marked upper hand for showcasing transparency for global delivery and project management.
- ☒ Currently, Cognizant does not charge its clients if they are brought into the C2 environment and rightly so because at this stage Cognizant is looking to gain traction from its client community. However, going forward, should Cognizant be able to adopt the appliance model and integrate UC elements as well, there is a strong market opportunity for C2 evolving from cost-saving to a revenue-generating proposition.
- ☒ C2 is most suitable for project- and service-based engagements in application development, support and system integration (SI) projects. However, in face of managed services focused on IT infrastructure, C2 has quite a way to go. Cognizant should consider integrating popular third-party IT infrastructure tools (in addition to the frameworks gained from the acquisition of Pepperweed Advisors) with C2. The SP should focus its service portfolio enhancement on proactive services through a mix of remote and onsite delivery models where C2 will play a key role.

- ☒ In building its IT infrastructure services portfolio, Cognizant will need to work with technology majors such as Cisco, HP, IBM, Avaya, CheckPoint, and Symantec among others. The inclusion of certified personnel and acquisition of skill sets will need to focus on building best practice processes for service delivery. This is a long-drawn process and Cognizant's industry peers already have a significant head start. Therefore, Cognizant will need to innovate on its delivery model and value proposition to compete effectively in the market.

- ☒ Cognizant's geographical distribution of revenue is strongly dependent on the U.S. market, which accounts for 79.1% (FY08) of the company's global revenue. While Cognizant has showcased sustained growth even in face of economic slowdown in the United States, it will be prudent to diversify the geographic distribution of revenue. With C2, the SP should look toward Europe and Asia/Pacific markets where there is clear opportunity for Cognizant's service offerings. In Asia, Cognizant already has presence across Australia, Singapore, Japan, and India, but the revenue contribution is less than 2%.

LEARN MORE

Related Research

- ☒ *IT Executive Buying Priorities: Approach to External IT Services Spend and Vendor Engagement* (IDC #AP221111S, November 2009)

- ☒ *Asia/Pacific (Excluding Japan) Consulting and Systems Integration 2009–2013 Forecast and Analysis* (IDC #AP221103S, September 2009)

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