

# Convergent Technologies Value Proposition

2/17/2004

**Document Version 2.0**  
Release 1

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Printed in Gurgaon, India.

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## Areas of Competence

Convergent Technologies (CT) is one of trusted software service providers based out of India. With its offices in India, US and Austria to facilitate fully integrated, globally distributed delivery capability, CT enables corporations across the world to Identify Key Building Blocks and Build Flexible, Scalable Solutions with Low Cost Of Ownership.

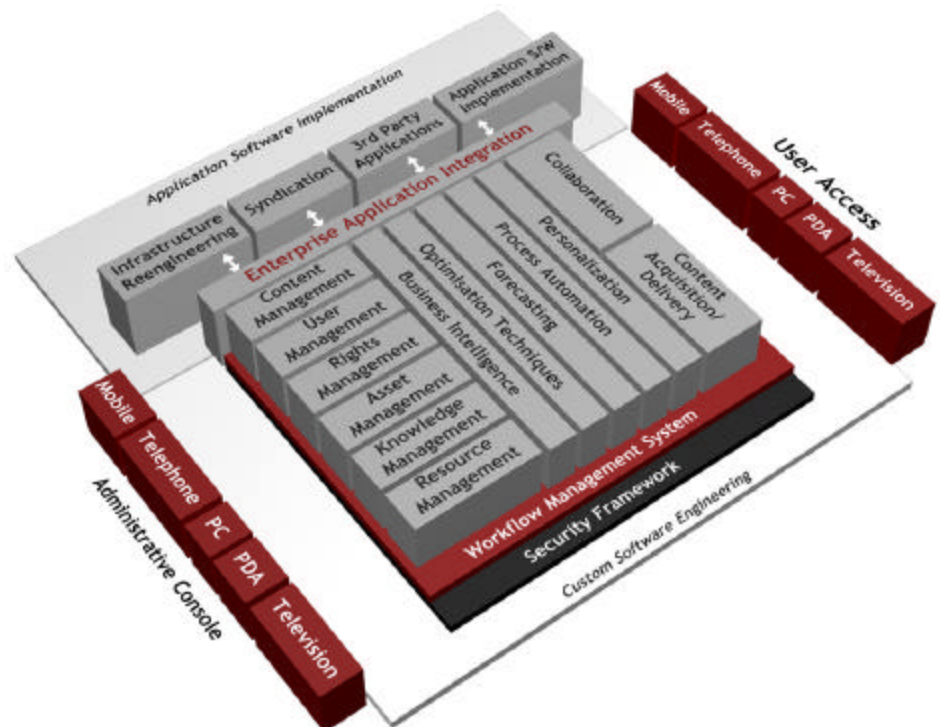
CT helps them leverage, develop and deploy intelligent end-to-end software services in the areas of:

- o Custom Software Engineering
- o Application Implementation
- o Enterprise Application Integration
- o Co-development and Outsourcing
- o Technology Consulting

CT's unique range of offerings is designed to provide the flexibility to clients who require a combination of building, managing and outsourcing their technology needs.

CT's Solution Framework facilitates:

- o Customized Automated Workgroups, Integrated Enterprise and Extended Enterprise Applications
- o Open Architecture to support Content Acquisition and Delivery capabilities for serving content to users through PC, Mobile, PDA, Telephone, Television and other Content Access Devices
- o Scalable Architecture to enable Enterprise Application Integration with a broad install base of existing Applications, Operating Systems and Devices
- o Real-time Information Exchange with Business Intelligence and Forecasting capabilities



Our Solution Framework is engineered to significantly reduce the cost of doing business by seamlessly integrating with the existing business processes in an organization.

When you surround our technology offerings with various convergence possibilities, you would begin to lay a foundation for a total digital facility, which is our vision for the future.

## **Custom Software Engineering**

To stay relevant in today's marketplace, companies face a multitude of issues including:

- Newly Adopted Technology need to work
- Technology Migrations need to made quickly and efficiently
- Resources need to be available
- Business models need to be viable
- Costs need to be controlled

Therefore, it is increasingly becoming a necessity for organizations to build custom solutions that can integrate with a multitude of existing applications and technologies. For business critical applications, this has become even more essential, resulting in an increasing number of organizations recognizing that building a custom solution may be the more suitable choice than implementing off-the-shelf applications.

Software Engineering encompasses two main areas:

- Full Life Cycle Software Development: Either on site or offshore which covers all aspects of software development from requirements definition through development, quality assurance, installation, education/training and implementation.
- Software Transition: Transforming code from legacy technologies to newer frameworks or platforms.

Through the use of our proven Project methodology, we help clients develop and implement custom solutions at a lower cost and shorter timeframe.

## **Application Implementation**

In most areas, there is no dearth of choice of off-the-shelf ERP, Content Management, e-Procurement, Supply Chain Management, CRM or Mobile Applications. How does one pick the right solution? What will work for a company best in the light of its IT skills and business process maturity? How much should one budget? What happens if some customization is required?

These are the questions we try to answer when a client picks us as a partner to help define requirements, select solution options and implement the chosen application.

Our extensive network of strategic partners allows us to deliver best of breed packages to its clients.

For applications where pre-packaged solutions can meet an organization's requirements, CT's team of Engagement Managements and team leaders manage a full implementation cycle. This includes implementation, integration to existing applications, and testing.

CT also provides maintenance and support services to companies who would like to focus on their core competencies and look for operational flexibility.

CT's expertise lies in implementing solutions within and beyond the enterprise, however for unique client requirements, its software engineering services provide clients the choice of building/developing customized solution using both an onsite and offshore model.

## **Enterprise Application Integration**

Applications and Data play a vital role in corporate survival today. Businesses have invested significantly in upgrading their IT hardware into massively scalable infrastructures. Enterprise Application Integration (EAI) tools leverage the underlying IT infrastructure, and support enterprise-wide deployment of integrated applications.

While the underlying hardware IT infrastructure has progressed to a true peer-to-peer resource network, Application Integration Platforms (AIP) have lagged with earlier generations of centralized hub-and-spoke or Integration bus oriented architectures that do not leverage all the computing and storage power available at the end-points of networks. Resulting operational inefficiencies between the AIP and IT infrastructures lead to greater deployment complexities and costs.

CT works on standards-based integration suites that combine the power of a standards-based Enterprise Service Bus with easy-to-use tools for the deployment of distributed workflows across heterogeneous networks. EAI tools like Fiorano Tifosi allow existing legacy and packaged applications to be used as building blocks from which distributed integration solutions can be rapidly synthesized.

We offer a number of benefits over existing EAI solutions, including faster implementation and deployment cycles, creating a flexible e-infrastructure for future expansion, offering a high degree of reuse, easy extensibility, seamless interoperability and an improved ROI.

## **Co-development and Outsourcing**

Technology initiatives with either an enterprise-wide or customer-focused scope are inherently complex and effort, time, and knowledge intensive. These require specialized skills to innovate and stay abreast of latest technology trends while continually moving up the technology value chain.

For most large IT companies, outsourcing or a co-development provides a viable and stable alternative to derive higher returns and lower the overall cost of ownership and technology adoption. Some of the key benefits include:

- Reduce and control operating costs
- Reduce inefficiencies and increase overall productivity
- Gain access to world-class capabilities and best practices
- Share risks attached in deployment and maintenance of cutting edge technologies
- Free internal resources to focus on core areas
- Improve company focus on end customers

Handing off the complex IT skill to CT would mean access to a deeper and wider range of IT skills. CT can deliver better value, than the company could if it developed the application in-house.

CT provides a sustainable framework for all enterprise engineering initiatives, including Software Development, Package Solution evaluation, Enterprise Application Integration, Assessment, customization and implementation of third-party software packages, Multichannel solutions, Legacy Applications and Systems Integration.

## **Technology Consulting**

Assessing technologies from a myriad of options and selecting solutions which will best meet business objectives and ensure long term value requires a combination of business managers, technology experts, solution architects, and users to collaborate.

A technology strategy, like a business one, has to be lasting, as continuous changes can result in wasted investments and time. A business however, needs to be flexible and reinvent itself as market dynamics change.

The challenge, therefore, is to have a technology strategy that is flexible and adaptable to changes, but not require frequent investments as technologies become obsolete.

Any organization would look for a partner who has complete understanding of technology and business trends, expertise in developing lasting solutions, and the ability to transform business objectives into technology solutions.

CT helps companies define techno-business strategies and roadmaps, and design solutions that maximize enterprise performance and business opportunities.

CT provides consulting services in all stages of consulting lifecycle - Opportunity Identification and Visualisation, Business Case Development, Strategy Formulation, Prioritization and Implementation Support, Globalization Strategy and User Experience Analysis and Modeling.

## Capability Matrix

Operating Systems	MS Windows NT, 2000, XP, Linux (RedHat/SuSE), Palm OS, Solaris, SCO Unix	
Languages	C, C++, Java, VB, VC++, VJ++, C#, VB.NET, Perl, Javascript, TCL/Tk, VB Script	
Databases	MS SQL Server, Oracle, MS Access, MySQL, Sybase, DB2	
Web technologies	HTML/DHTML, JSP, Servlets, ASP, ASP.NET, PHP, Frontpage Extension, Flash, XML, XSL, XSLT, VRML	
Wireless technologies	WAP, SMS, Bluetooth, Wi-Fi, GPRS	
Microsoft Technologies	.NET Framework, Sharepoint Portal Server, Microsoft Exchange Server, IIS, BizTalk Server, MTS, Microsoft Commerce Server, COM/DCOM, COM+	
Sun Technologies	Java, EJB, J2EE, RMI, Swing, JNI, JNDI, JSP, Servlets	
Embedded Technologies	Digital Signal Processing, Microprocessors, Microcontrollers, Assembly Language Programming	
Media Technologies/ Video Broadcasting	Real Media, Windows Media, SMIL, Quicktime, DigiSuite, Illuminator Pro, Frost	
Application Servers	Broadvision One-to-One, Vignette v/7, BEA Weblogic, IBM WebSphere, Lotus Domino, Fiorano Marketplace, Hummingbird, Plumtree, Navision, JD Edwards, Cold Fusion	
Tools	Modeling	MS Visio, Rational Rose
	Planning and Monitoring	MS Project
	IDEs	MS Visual Studio, Eclipse, JBuilder,
	Webserver	Apache, Jrun, IIS, Tomcat
	Version Control	MS Visual Source Safe, CVS
	Messaging	Fiorano MQ, MSMQ, IBM MQ
	Front-end Design	Macromedia Flash, Adobe Photoshop, Dreamweaver
EAI Toolkits	BizTalk Server, Fiorano Tifosi, TIBCO	

## Working Model

CT works closely with clients and partners by providing them with appropriate onsite-offshore delivery mix.

### Onsite

The onsite model works well for projects that require not only ongoing development and maintenance but also flexibility to scale up the scope and deliverables. This model suits those businesses that have made strategic decisions to work closely with a technology company in defining how they can achieve business efficiency.

### Offshore

The offshore model suits those businesses who would like to partner with a technology company that understands their requirements, takes complete ownership of technology framework design, development of the solution, deployment, support and maintenance.

### Typical Team Composition

We designate 2 key persons to be involved in all stages of SDLC for any project - requirements gathering, analysis, design, testing, deployment and support:

- Engagement Management
- Project Manager

We separate the terms "Engagement Management" from "Project Manager" as separate functions.

Engagement Management works closely with the Client (normally at the client site). He interacts with the Project Manager and the client to iron out all technology issues and ensure timely/quality delivery issues. He makes sure that all deliverables are validated, all weekly plans are met and pending/new issues resolved.

Project Manager drives the implementation team completely, apart from helping the Project Monitor with certain Project Management responsibilities. He is into hands on programming/coding, and therefore someone senior who is technologically strong and has worked on a number of projects in the past handles this role.

Once the project starts, these 2 people who would be exchanging mails with the client on a regular basis. They are the prime contacts from our end - so all project specific emails/communication are cced to both of them.

When one of them is not present, the other person assumes the responsibilities of the other person automatically. This kind of Project Management configuration helps us in maintaining continuity of work/deliverables in case of all eventualities.

Depending upon the exact nature of work, the rest of the team members are staffed. A typical team composition would be:

- Technical Architects
- Module Leaders (for large projects)
- Team Members

- Configuration Controller
- DB Administrator
- Deployment Engineer
- Testing/QA Team

## **Project Planning, Design and Execution**

We use Microsoft Project Plan for effective project planning and tracking. A comprehensive project plan, inclusive of a GANTT chart/ PERT chart with laid out milestones is prepared once the project is kicked off.

Our choice for the UML methodology is the use of Rational Rose or Microsoft Visio to keep a clear visibility into the design and the development phases as well as to help us measure the quality of the work done by each of our team member. This way we can control the development process of so many different components that will have to be integrated together at a final stage.

When a component is defined, it is then graphically designed into all the related entities that compose it. The programmer starts the implementation using the graphical interface. At this stage the programmer isn't coding straight ahead. 50% of the implementation work is still made with the graphical tools such as the Class diagrams that show the interrelationships between entities. Once the programmer achieves this design layout, our software architect goes through a design review, which proceed the last implementation phase. If the design passes the review, the remaining implementation work is the actual coding. At the end of this process, a coding review will take place before the testing starts. The design review and the code review are our 2 main steps to measure the quality of the software components produced by our programmers.

## **Deliverables**

In addition to the source code, Convergent Technologies provides the following during different stages of a project lifecycle:

- Needs Analysis Document to validate the Software Requirement Specifications
- High Level Design Document
- Object Reference Manual explaining all the objects and components used
- API Reference Manual, describing all the APIs written for the site
- Setup Manual for setting up the environment in the Deployment and Development of the applications
- User Manual for Administrators and Content Editors on how to use the system
- Database Reference Manual describing the fields in the different Database Tables
- Inline Documentation, comments conforming to the Software Coding Standards

## **Online/Offline Helpdesk for Problem Resolution**

We provide a web-based interface that supports Problem Escalation, Resolution and Monitoring. Apart from being providing issue tracking and reporting interfaces, automatic e-mail notifications and escalation are supported.

It supports multiple external customers and multiple internal and external projects, provides support to all project team members.

It supports the following:

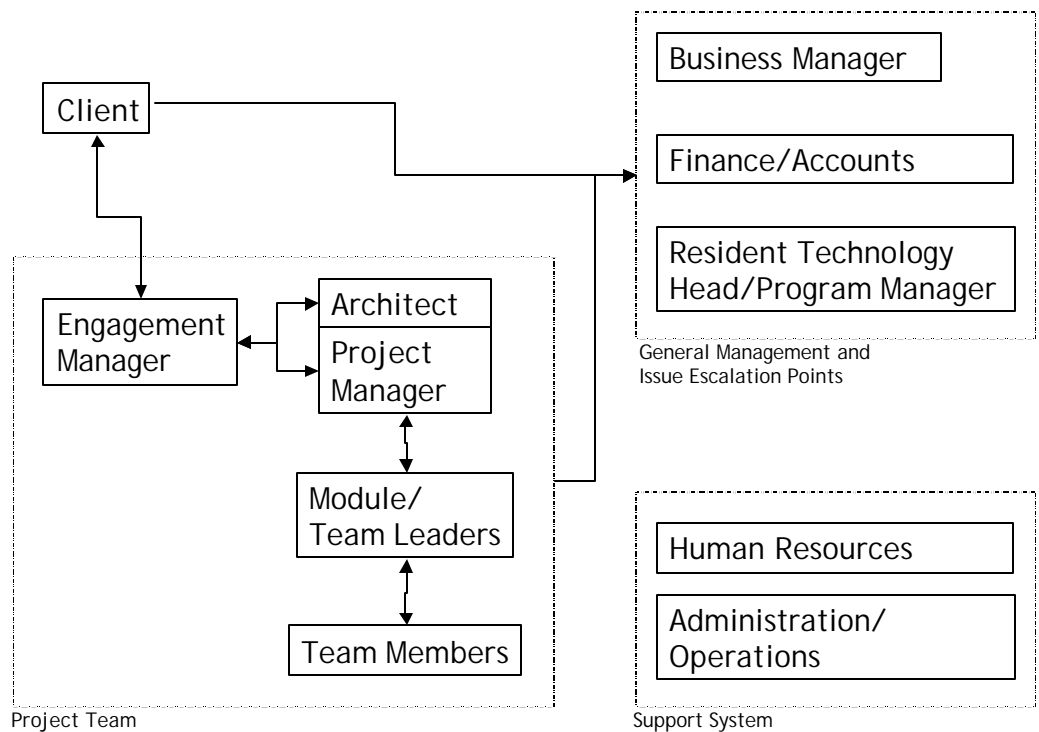
- Create, edit or close trouble tickets
- Add, edit or delete users and administrators
- Configure, add or delete accounts
- Select, setup and run usage reports
- View and edit your master account information

For those clients or project teams who do not have 100% web-access, the application generated excel-sheets and sends them as e-mails to respective people.

Some of the clients prefer Excel based Issue Tracking - so we adopt our methodology to suit their convenience.

### Problem Escalation and Reporting Mechanism

A typical communication flow between a client, project team, general management and support staff is as follows:



Project Activities are monitored on a daily and weekly basis in the form of Daily Activity Reports (unstructured emails) and Weekly Activity Report or WAR (We use an inhouse Web-based System for maintaining WAR).

Communication between different entities happen through emails, physical interaction, telephones and instant messenger (depending upon convenience).

All documents are versioned and all changes are marked inside the document.

# CT Differentiation

## Expertise and Experience

- Expertise and Experience
- Passion for delivering measurable business results
- Strong Engineering and Analytical Grounding
- Breadth and Depth of Domain Knowledge
- Emphasis on building Scalable Solution Framework

## Quality

- Fully integrated, globally distributed delivery capability
- Rapid Technical Design and faster Speed-to-Market
- Rapid Application Development (RAD) methodology
- Quick Turnaround Time for fixing any problem related to Mission-critical Applications

## Delivery Process

- Technology solutions that are designed for ready adoption
- Focus on creating/using reusable components
- Emphasis on low cost of overall ownership

## Cost

- Quality Control Initiatives to ensure consistency across various delivery points
- Strong Project Management Practices for effective planning and control
- Quality Documentation

# Partial List of Clients

## India

- Thomson Press
- Samsung Electronics India Information and Telecommunication Limited
- Microsoft Consulting Services
- Adobe Systems India
- Bharat Sanchar Nigam Limited
- Ericsson India
- National Crime Records Bureau
- Center for Railway Information System
- Multivirt India Private Limited
- Intiqua
- Maruti Udyog Limited
- Grey Worldwide
- TBWA Worldwide
- NIIT

## US

- Go2Call
- Delta Security Systems
- Fiorano Inc
- WOW Corporation
- Starvine Inc.

## Hong Kong

- Swire Properties

## Austria

- Blue-C
- Bureau1010
- Digital Motion Picture

## Singapore

- Credit Suisse Private Bank

## Korea

- Pohang Steel Works (POSCO)

## Partnerships

CT network of strategic partners allows it to deliver best of breed solutions to its clients. We have strong business relationships with these partners:

- Fiorano Inc, US
- WOW Corporation, US
- Microsoft Consulting Services, India
- Multivirt, India
- IBILT Technologies, India
- Digital Motion Picture, Austria
- Bureau1010, Austria
- Coexl Technologies, Australia

CT and its partners manage the full consulting, implementation and deployment cycle.

## Key People

**Sujit Panigrahi**, as the Chief Executive Officer, oversees the Strategic Directions, Policy Framework, Organisation Building and Carrier Relations. Sujit did his Master of Management Studies and M.E. (Information Systems) from BITS Pilani, India. With the right mix of experience in Management, Technology and Design, he spearheads the company's dream of translating the Convergence of Web-enabled Open Systems, New Media, Wireless/ Telecom and Embedded Systems into compelling tools and services. He is based out of New Delhi, India.

**Lucy Das** is the President and she is in charge of Global Operations, Business Development and Information Services. She is based in Santa Clara, California, USA. Lucy graduated in MSc Tech, Information Systems from BITS Pilani, India. She worked as a Technical Consultant in IBM Global Services and Ajilon Inc for over 8 years during which, she played several key roles of Lead Designer, Developer, Deployment Planner, Mentor, Customer Relationship Coordinator and Troubleshooter. She truly believes in Convergence of new ideas, technologies and people to create new-to-the-world solutions and with her natural instincts for sensing new opportunities and business relationships, she is responsible for the Global Operations of Convergent Technologies.

**Anoop Raizada** as Chief Finance Officer is in charge of Finance and Internal Process Improvement. Anoop did his BE (Chemical Engineering) from BITS Pilani, India and Chartered Accountancy from Institute of Chartered Accountants of India. He has been involved in various mission critical roles in finance, operations and process reengineering in large Blue-Chip Companies like Indian Airlines, NTPC, Grasim Industries, State Bank Of India, Bank Of Baroda, UTI Bank and Badarpur Thermal Power Station. Anoop has always been a result-oriented team player, problem solver with a strong focus in masterminding, influencing and building strong Internal Systems.

**Kommu Ramakanth**, as Chief Technology Officer, is in charge of Worldwide Engineering, Emerging Technologies and New Initiatives. Ramakanth did his B E (Electronics and Communication Engineering) from Andhra University, India. With his progressive hands on experience of over 7 years on leading State-of-the-Art technical projects, Ramakanth is clearly the man for the job. He has led teams on Embedded Application, Value-added Telephony and Internet Services, Smart Cards, Multimedia Pay Phone, and Web-enabled Open Systems. The strongest value that Ramakanth brings to Convergent Technologies is Quality Software Development.

**Muneesh Janardhanan** is in charge of Emerging Technologies Group. Muneesh did his B E in Instrumentation from BITS Pilani, India and has also worked with CSIO and AmSoft Systems. He has been instrumental in engineering state-of-the-art software solutions for various customers in Europe and South-east Asia and ensuring complete Client Satisfaction. As Convergent Technologies focuses on core technologies and building products and services on our own, Muneesh's expertise plays a vital role in quality coding and documentation standards.

**V Somasundaram** is in charge of overall Program Management. He did his BE in Electronics and Communication Engineering from Bharathidasan University, Trichy, India. He has over 8 years of progressive hands on experience in Design, Development and Management of state-of-the-art technical projects. He has strong expertise in the areas of Web Enabled Open Systems, Applications for Handheld devices, Hardware and Firmware Design, Assembly language programming and Distributed Systems.

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