

## View Point



### Aerospace Industry and Social Computing

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#### Abstract

Aerospace industry needs continuous and effective collaboration with customers and suppliers to ensure that they design and build right products and offer relevant services. This is necessitated by increasing globalization across the extended enterprise and competitive market place they are in.

Social Computing provides the context and components for such collaboration through software platforms and communication technology. This approach reduces implementation complexity and cost of collaboration while improving confidentiality and security in the aerospace eco system. This can provide the leverage to increase return on enterprise implementations of PLM and ERP.

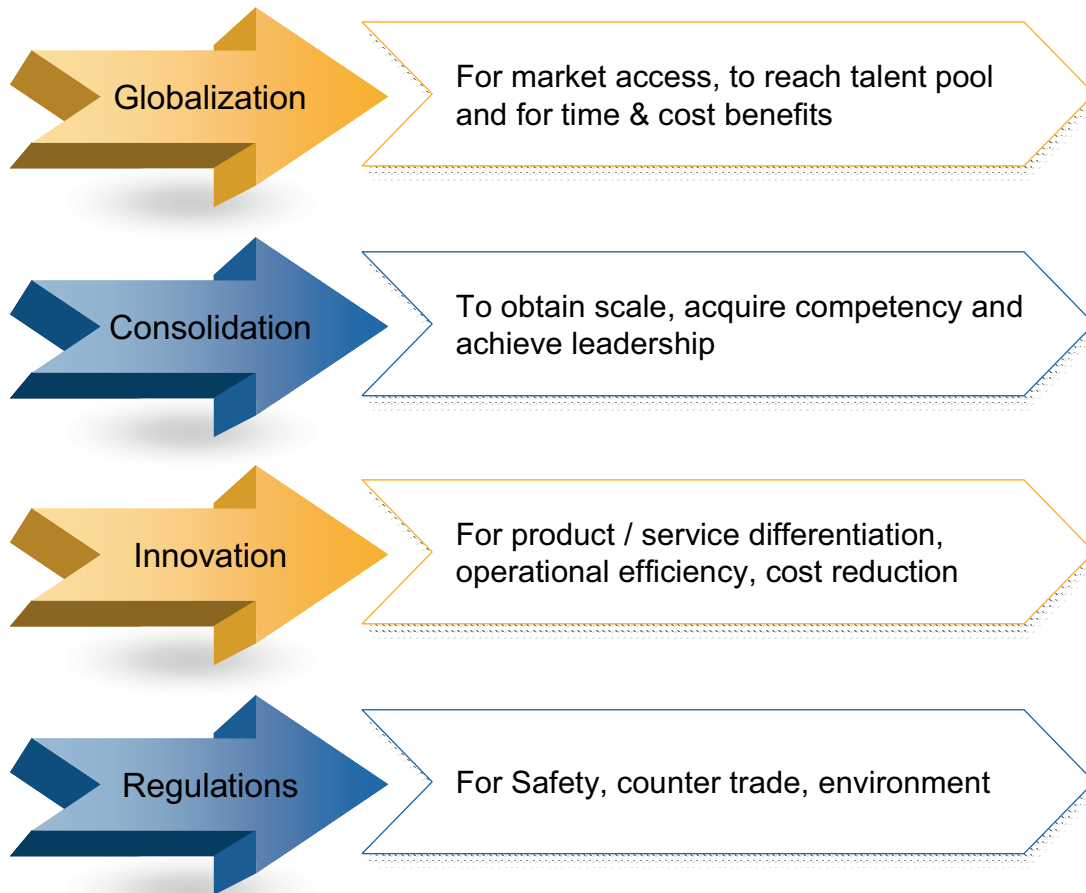
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## Aerospace Industry

Global Aerospace industry is in a flux. While the overflowing order books of leading OEMs paint a promising future the ongoing economic turmoil has left leading airlines to constantly rethink their strategies and redefine their priorities. This calls for constant reworking on the fleet composition and product configuration in tune with ever changing airline traveler preferences and predilections.

The key drivers and imperatives are as depicted below



Propagating frequent program changes, regulatory developments, customer preferences across the extended enterprise early enough to limit cost and time implications- demands for a smooth and bi-directional information exchange both in structured and unstructured formats.

The members of aerospace eco-system that are at play are:

- Design and manufacturing workforce at Aerospace OEMs
- Their Partners including vendors, suppliers and service providers, R&D / Universities
- Customers including airlines and air travelers
- Aviation and regulatory authorities and governmental agencies
- Communities including industry lobby groups, unions and activist
- The General Public

The traditional tools of collaboration including enterprise PLM and ERP applications have been addressing product development life cycle and supply chain integration.

However, there is a need to achieve boundary-less collaboration to drive innovation and reap its resultant benefits.

## Social Computing

As companies discover the power of Social Computing, including web portals, tools for managing information, work interaction, based on Web 2.0 technologies, they are able to achieve and benefit from collaboration.

The internet technologies are reshaping societal interactions and are inevitably affecting business world and industry can only ignore this reality to its peril. This resultant shift is observed in the following;

- Dispersion of innovation all across the eco system
- Increasing contribution from those consuming as against those producing
- Greater influence of specific communities over companies and authorities

Social computing is about enabling, encouraging and capturing the often unstructured interactions between individuals and groups. These interactions and the players involved are the essence of such virtual or real communities - and their diversity, depth and reach are the measure of how vibrant and dynamic those communities are.

Social computing helps an enterprise to tap into the ideas both internally and externally.

*“Within the enterprise, social computing facilitates many interpersonal functions with business implications, such as internal teaming, problem solving, collaboration, and knowledge management and transfer. Such interactions lie at the core of meeting growing business demands to improve communications, enhance collaboration and encourage innovation throughout the organization.”\*\**

*\*\*Externally, social computing supports deeper, more mutually supportive enterprise relationships by involving customers and suppliers in similar ways at every stage of a business life cycle - from design, through development and production, to marketing and sales, to customer service and support. \*\**

As businesses increasingly seek to strengthen their level of engagement with prospects and customers, understanding the power of communities, their compulsions, their aspirations and how to interact with them will become essential as we go along. Stronger customer relationships increase customer loyalty and brand recall, and ultimately drive enhanced revenue for the business.

## What are the drivers?

Organisations are increasingly adopting Web 2.0 technologies in the enterprise for multiple reasons.

The business drivers being

- better interaction with customers and end users
- more effective interfacing with partners and suppliers
- improved intra-team and inter-team collaboration among employees

It is seen that the predominant business driver is the need to achieve improved customer interaction.

## Social Computing tools

In order to make social computing a reality in an organization the right set of tools should be selected and implemented. In the minimum, the requirements to be met are provision of the tools for the users to create their own workspace that can be shared with others with requisite access controls.

Web 2.0 is web-based technologies that allows a ‘read/write’ approach to the web and enables the user to be both a consumer of content and contributor to services.

The main software elements are wikis, blogs, RSS and tags. These may be provided in conjunction with specific forums / discussion boards, directories along with communications tools like instant messaging and emails.

- a **wiki** is a shared workspace. Ideally, the whole company can access it and benefit from the collected knowledge contained within it. Sometimes this isn't possible and small-scale private wikis with restricted membership can be created. Participants read, contribute, edit or remove what is already there.
- a **blog** provides a permanent record of the thoughts of an individual. Some might be playful but, in a business context, most will be setting out the expertise, knowledge and credentials of their authors.
- a **social networking site** is to link to others of interest.

\*\*The Business Impact of Social Computing, 2008, Adam Sarner, Nikos Drakos, Stephen Prentice, Publication Date: 16 September 2008, Gartner Research

- an **RSS** feed (Really Simple Syndication) can be used to pick up new information of interest from wiki pages, a blog or a forum, and one can subscribe to it in an internet site
- **Tagging** & bookmarking - also called folksonomy, where users assign tags (descriptive words or phrase) to content, either their own or that created by others
- **Mashups** - Combines applications to create a new use, i.e. mapping combined with photo tags and mapping combined with real estate
- **Podcasts** & Video Blogs (Vlogs) - Single-use or subscription-based online audio or video downloadable to a PC or other device

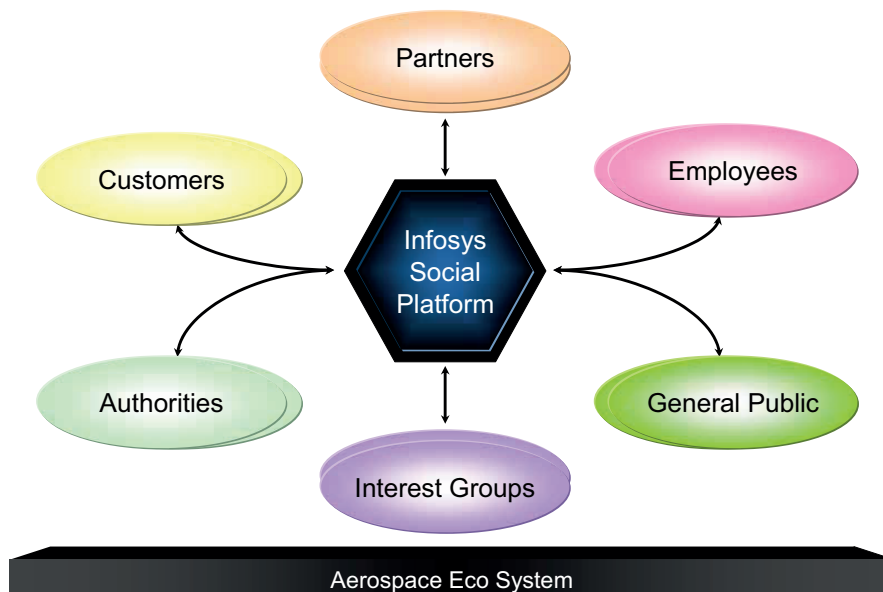
## Why should the Aerospace industry take to social computing?

- it may be already happening in the organization in an informal way
- it is an **ageing** industry and knowledge capture is a dire need to address attrition risk
- to meet the expectations of millennial generation
- to support global and distributed workforce engagement
- to locate and tap expertise in the extended enterprise
- to have a secure platform for collaboration with traceability
- to accelerate collaborative projects
- to support training
- for increased innovation
- for branding and differentiation

## Infosys Social Platform for Aerospace Clients

Infosys social Platform is aimed to help large enterprises lead the transformation in leveraging web 2.0 to better connect, collaborate and co-create with their

- Customers
- Employees
- Partners
- Authorities
- Interest groups
- General Public



Infosys social platform would include

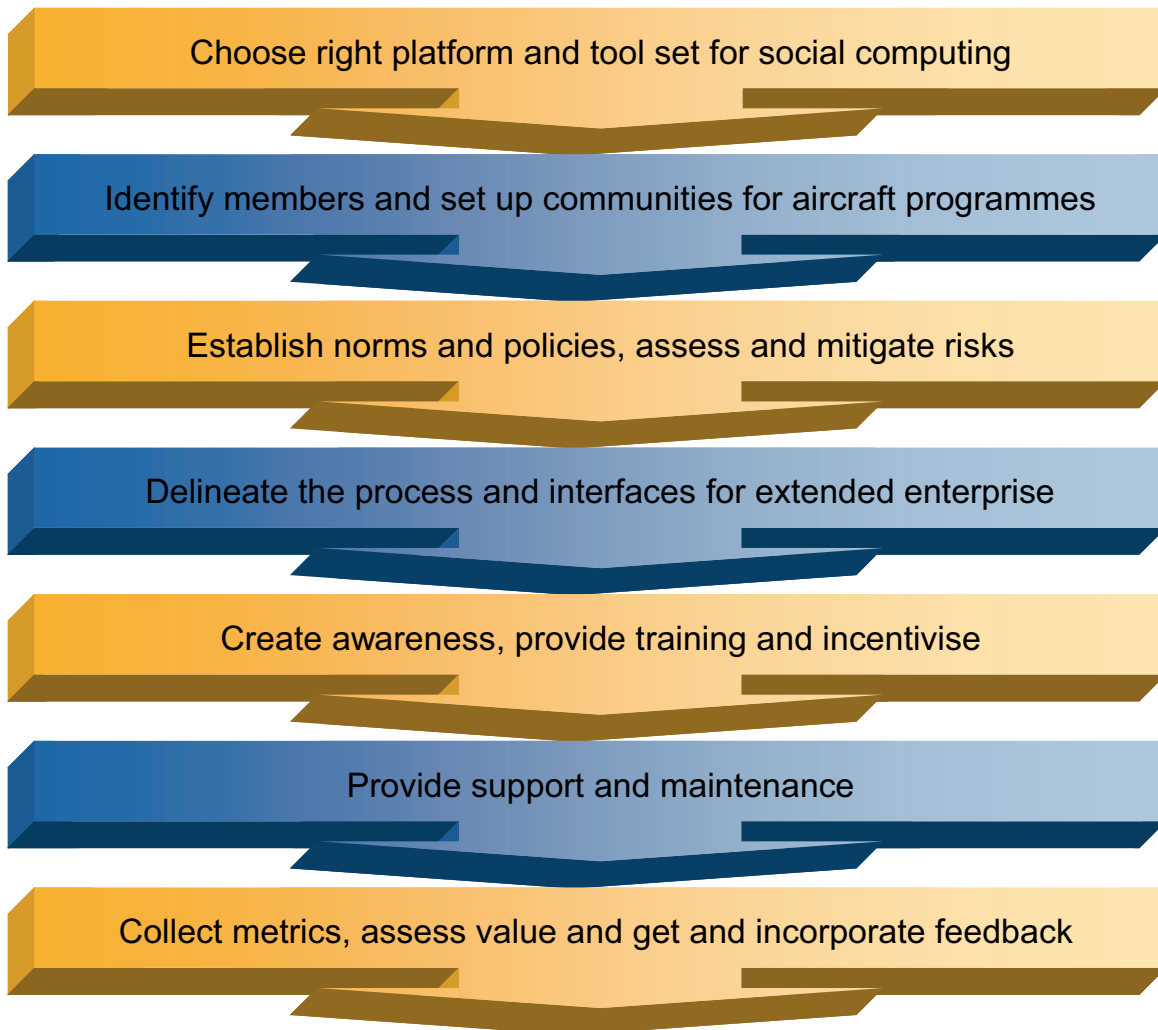
- WebVideo conferencing, instant messaging and shared workspaces
- Blogs, Podcasts and webcasts
- Wikis and Idea management

and services cover

- Community set-up and management, moderation
- Social analytics for analytics operation and reporting

## Implementation steps

An aerospace enterprise can adopt a step by step approach to implement social computing with communities set up around specific aircraft program. Alternatively this could be structured around areas of competency or centers of expertise that can cut across programs.



## Conclusion

Social computing allows aerospace companies employees to create business networks that cut across organizational, geographic, and functional titles. Employees can then share information, manage and track projects, and work collaboratively and interactively via multiple channels.

It also gives enterprises a way to secure the information they would otherwise need to share across unsecured, public social-networking and collaboration tools. Finally, it improves the user experience and accelerates adoption of new processes by providing user interfaces that are optimized for each role.

Infosys social platform enables aerospace clients to enable the entire eco system to connect, collaborate and co-create and better leverage their enterprise backbone applications.

### About the Author

Prasad Nanjanagudu is Associate Vice President and Head of Aerospace & Defence vertical in Europe. He has over 20 years of experience with leading companies in India, US and Europe across Aerospace, Auto and Manufacturing industries and Consulting. He is a member of Royal Aeronautical Society.

### References

- Business Impact of social computing, Gartner



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