



**Sonata's  
Initiatives on  
Green IT**

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## Sonata's Initiatives on Green IT

A decade ago, the notion of 'carbon footprint' was unheard of. Yet today, in the context of climate change and sustainability, it is something that is rising on a lot of organizations' agenda, and will continue to impact the business world in the foreseeable future.

The consumption of energy is exceeding the production of renewable and non-renewable resources of energy. The rise in the levels of environmental pollution is quite alarming. With the scarcity of resources and shooting costs of energy procurement, 'Going Green' is no more a choice. It is now a strategic necessity for maintaining environmental sustainability. So it is clear: what is good for the environment is imperative for business. This axiom drives organizations' commitment to designing and delivering products and services that help businesses reduce their power consumption, environmental impact, and energy costs.

That the industrial and corporate world has also contributed to environmental pollution is an irrefutable fact. Within this context, many perceive the Information Technology (IT) industry as being relatively 'clean', and in some cases, technology does have a very positive impact on the environment. For example, video conferencing and e-learning technology reducing air travel, or digitalization reducing the use of paper. However, what is not immediately clear is the 'negative' impact of IT on the environment; rising energy consumption and the resulting carbon emissions, usage of hazardous substances in the manufacturing process and IT equipment being used for landfills to name a few examples. This has given rise to the notion of 'Green IT' – a topic that has been attracting a lot of attention across the marketplace.

In simple terms, "Green IT" refers to developing effective programs for IT Eco-Efficiency and IT Eco-Innovation that drives improved business results and measurable environmental benefits. However, Green IT means different things to different people; and vendors are approaching this market from a variety of angles. Additionally, despite the hype surrounding Green IT, there has been very little information on how it is being perceived by end-user organizations, and more importantly, what drives their investments in 'Green' (for those who are acting) and what generates interest (for those who are thinking)? As one of the fastest growing sectors of the economy, the IT industry has a significant role to play in promoting Green initiatives. The need of the hour is for technology companies to seamlessly integrate their business and environmental objectives.

Being a socially responsible corporate citizen, Sonata Software has launched important initiatives within the organization to promote the cause of Green IT. It has aligned its IT agenda with mission-critical sustainability goals in order to increase energy efficiency and productivity while reducing carbon footprint. Through environmentally sustainable IT systems, efficient use of computing and other resources, minimized use of hazardous materials, and enhanced recycling and biodegradation of defunct products, Sonata has increased its IT eco-efficiency while cutting down costs.

With Green IT being at the top of its IT agenda, Sonata is following a holistic approach to 'Go Green.' These initiatives corroborate Sonata's commitment to a Greener planet.

## 1. Partnerships

Sonata has partnered with global leaders Microsoft and VMWare as part of its Green IT initiatives.

### a. Gold Support Partner for Microsoft Products

- i. Sonata has partnered with Microsoft to implement virtualization for customers. It has a number of Microsoft trained and certified professionals for implementing Microsoft's virtualization product Hyper-V
- ii. Sonata, in partnership with Microsoft, has done a number of Proof of Concepts for various customers across varied industry verticals.

### b. Enterprise Partnership with VMware

- i. Sonata has partnered with VMware to implement its virtualization products, such as VMware ESX, VDI servers, etc., for customers. Sonata has VMware trained and certified professionals for implementing VMware virtualization products
- ii. Sonata, in partnership with VMware, has done several PoCs for various customers spanning diverse industry verticals, to help them achieve their Green IT objectives.
- iii. Sonata is also supporting TUI InfoTec (Sonata's Germany-based subsidiary) and its customers for the implementation of VMware virtualization products and solutions.

## 2. Services to customers

Sonata provides specialized services to customers which are based on technologies contributing to Green IT.

The following two major sets of services, based on Microsoft and VMware virtualization platforms, are provided by Sonata:

### a. As part of Microsoft's Hyper-V virtualization implementation services, we undertake:

- i. Capacity planning
- ii. Identification of candidates for virtualization
- iii. Planning and conversion of physical machines to virtual Machines (P2V)
- iv. Optimization of virtualization solutions to consolidate Windows or Linux workloads
- v. Designing and implementation of hosted desktop virtualization for optimizing usability, flexibility and manageability
- vi. Designing and implementation of Hyper-V business continuity features, such as live backup and quick migration, enabling businesses to meet uptime and response requirements

### b. As part of VMware virtualization, Sonata offers the following services:

- i. Configuration and setting up of multiple virtual servers of different platforms and applications on ESX server
- ii. Hot and cold cloning of physical machines to virtual machines
- iii. Configuration and setting up of DMZ virtual network infrastructure in ESX server as per the organizational requirements
- iv. Migration of virtual machines from one ESX server to another through VMware VMotion
- v. Implementation of VMware Virtual Desktop Infrastructure (VDI) for virtualization of desktops

- vi. Designing and implementation of VMware Lab Manager as per the development and testing project requirements
- vii. Management of and support to VMware virtual environment

### 3. At TUI InfoTec

Sonata's Germany-based subsidiary TUI InfoTec GmbH, is part of the TUI AG building which is ISO 14001 certified. Within the scope of this certification of ISO 14001, TUI InfoTec GmbH follows all the sections of various standard procedure instructions for environment protection. TUI InfoTec GmbH also creates awareness among the employees on the following topics:

- Waste Management : Avoidance and Reduction Methods
- Garbage Separation
- Use of Recycled Paper
- Usage of Bicycles
- Extensive use of public transport

In addition to the above, TUI InfoTec also focuses on providing Green IT Services to its customers. TUI InfoTec uses virtualization technologies in their Data Centre to save the energy consumption of the servers. Old servers are not replaced with new physical hardware anymore; instead they are virtualized.

35% of TUI InfoTec's servers are virtualized.

With a new VMware Host (which consumes only 430 watts of energy in comparison to a physical server which consumed 680 watts of energy) TUI InfoTec has been able to reduce the power consumption significantly.

One of the key highlights of the TUI InfoTec Data Centre in Hannover is that the heat generated in the Data Centre is utilized for heating the office premises thereby significantly reducing the energy requirement to heat the office premises.

### 4. Best Practices

Sonata follows industry best practices that contribute to Green IT for designing and operating Offshore Development Centers (ODCs) and offices. These are:

- **Consolidation:** Consolidation of servers, thereby significantly reducing the number of physical servers.
- **Virtualization:** Virtualization of servers, leading to consolidation of multiple applications on one physical server, thus reducing the server footprint and trimming down carbon emissions.
- **Storage consolidation:** Aggregation of a number of storages into a single storage of higher capacity to meet the ever-growing data requirements, thus reducing the total number of storage boxes.
- **Data Center design:** While designing Data Centers / ODCs, the cooling requirements are meticulously planned and implemented to ensure optimal utilization of power and minimum environmental impact.
- **Replacement of CRT monitors with LCD monitors:** Across the organization, CRT monitors are being replaced with less power consuming LCD monitors in a phased manner.

- **Green IT criterion for new purchases:** For new hardware procurement, vendors with Green IT compliant architecture are shortlisted.
- **Switching off desktops / laptops:** All users are advised to switch off their Desktops/Laptops when not in use for a long time. For instance, during weekends and at the time when users go on leave. However, the users are advised to switch off the monitors at the end of each day and also during short breaks.
- **Replacement of old hardware devices:** Aging hardware devices, which consume more power, are being replaced with new energy-efficient devices.
- **User inputs:** Users are encouraged to give inputs and suggestions to improve the energy saving measures.
- **Convergence:** Through a blend of power conservation and optimization of computing resources, Sonata is making an effort to reduce environmental impact.
- At project stage most of the work space and public areas are used with environment friendly materials. Wood interiors are minimized to 11% of the total project at Global Village, Sonata's development centre in Bangalore.
- e-Waste and crude oil disposed as per new Green IT regulations published by Pollution Control Board
- All new procurements are with Electronic Product Environment Assessment Tool certified products as for as IT is concerned.
- Emphasis on using mercury free devices or those with least mercury footprint
- Optimized AC/ lighting in all development facilities. (Like remote controlled Lights provided in work area, PC labs and class rooms which will switch off the lights if not required with a click of a button)
- We have brought in a new pest control vendor, who uses herbal pests that are environment friendly

## 5. Initiatives

Sonata is driving noteworthy initiatives to promote Green IT for running / operating its ODCs and offices. Through these initiatives, Sonata has achieved 20% decline in power consumption and thus, expenditure. These initiatives are:

- a. **Efforts to reduce power consumption:** To reduce power consumption, Sonata has:
- i. Switched over to energy saving / low energy consuming bulbs.
  - ii. Replaced all halogen bulbs and tube lights with CFL bulbs and tube lights
  - iii. Switched to CFL bulbs and tube lights in most of the areas in the office, including the lift lobby area and in chandeliers.
  - iv. Introduced and process in progress for Sensor implementation to save lighting energy
  - v. Video conference is used for internal as well as customer meetings wherever possible
- b. **Optimal usage of paper:** In an endeavor to make its offices paperless and save paper, Sonata encourages employees to minimize actual printing of documents unless absolutely necessary. In case printouts are required, double-sided printing of papers is encouraged.
- i. Lower GSM procurement for Printers
  - ii. Document sharing machine has been installed and all photocopying is done through scanning. All bulk printouts are monitored at the Printer junction.
  - iii. Recycled lesser micron tissue paper & rolls are procured for rest rooms
  - iv. Reduction in usage of paper by implementation of organization wide Enterprise Resource Planning (ERP) software
  - v. Paper consumption in the sanitary zone has been reduced

**c. Controlled usage of air-conditioners (ACs):** Sonata has limited the usage of ACs in all its facilities.

- i. After 6:00 PM, ACs are switched off and pedestal fans are provided to the employees staying back for work, or working on holidays
- ii. Package units have been installed to selectively control the temperature of specific areas based on population density of employees in those areas and distribute chilled air evenly.

**d. User awareness:** Reminder mails are sent to users periodically, asking them to switch off the systems and monitors at the end of each work day, as also to switch off the lights, ACs and other electronic equipment in the conference rooms and discussion rooms after the meetings.

**e. Switching off monitors:** Users are encouraged to switch the monitors off during long breaks such as meetings, lunch, etc.

**f. Noise and e-waste management:** To prevent noise and e-waste pollution, Sonata has adopted the following measures:

- i. All Diesel Generator (DG) systems are insulated with acoustic fabric to maintain the noise levels at less than 75 db.
- ii. Waste generated from servicing of DG sets and other processes is disposed off scientifically in compliance with the hazardous waste management procedures.
- iii. Obsolete hardware is disposed off through safe procedures by authorized vendors.
- iv. Computer systems that are replaced by those with newer technologies but are still in working condition are donated to charities / non-profit organizations.
- v. Used batteries are deposited at the designated collection centers.
- vi. Used toner cartridges are sent back to the manufacturers for recycling.

#### **g. Water**

- i. Rainwater harvesting is being implemented at Global Village & Richmond Road Offices
- ii. Sonata's Development Centre at Global Village, Bangalore contributes towards Sewage treatment plant, water recycling
- iii. Increased Preventive maintenance schedules to check the plumbing lines for leakage and arrest.

#### **h. Transportation**

- i. Low performing, Co2 emitting DG's replaced with equipments based on latest technology for maximum performance resulting in better fuel / diesel management
- ii. During general hours large shuttles operate to pickup and drop employees instead of small vehicles.
- iii. Inter office shuttles between Sonata offices have been implemented to ensure employees use a common transport and not individual cars.