Configuration Management in Enterprise Software

Contemporary enterprise software, including ClickSoftware Service Optimization, needs to be highly adaptable to fit in with the variety of IT applications in use today and to be able to model the diversity of business problems and workflows used to address them. In order to achieve such adaptability, these applications' configurations contain thousands of parameters of different kinds.

Effective management of this multitude of parameters is crucial for optimal use of such software. Communicating the problems and solutions with technical support teams, deploying new application server sites, adding new functionality to an existing site... in all these cases, being able to efficiently and reliably manage the configuration does not only decrease the deployment or turnaround time, but also increases the reliability of changes and decreases the probability of productivity loss due to accidental misconfiguration.

Xoom and What It Can Do for You

Xoom (pronounced "zoom") is a solution offering an efficient and unified approach to configuration management for Service Optimization. Xoom represents its whole configuration as a single entity, allowing it to be used for the following purposes:

- Identify differences between two configurations. As a result, support call turnaround time can often be dramatically decreased by simply highlighting the differences between the current and the recommended configuration. Also, the configuration of two server sites can be compared to see why one works well and the other one doesn't, or to simply see how their configurations differ.

- Reliably apply configuration changes in a controlled manner using a Xoom configuration file instead of manually performing a large number of error-prone clicks and manual entries described in a configuration document. This capability virtually eliminates the possibility of accidental misconfiguration, and, should something go wrong, offers a far less destructive way of disaster recovery in case of misconfiguration than a full restore from backup which would normally lead to a partial loss of recent operational data.

- Dependencies between different settings are automatically identified by Xoom, enabling for the first time a detailed dependency analysis including identification of broken dependencies and unused settings, as well as the visualization of relationships between settings.

- Customizable reports summarizing different aspects of the configuration can be created quickly, offering an efficient new way of understanding and troubleshooting the configuration.

Migrating settings between environments ...

The Settings Migration Tool provides the ability to export the settings, in whole or in part, from one instance and import them into another. This makes it easy to reliably deploy settings from a test environment to production, quickly create new test environments or deploy new production sites. On import, the differences between saved and current settings are visualized and dependencies are resolved to make sure that the settings are imported in a way that keeps the configuration consistent at all times.

... creating and using a configuration log ...

The Xoom Logging Agent saves the configuration at predetermined times. The Xoom Logging Panel is used to visualize the timeline of the recorded changes, either in whole or in part. In most cases, Xoom also allows the previous configuration to be restored, providing a quick and safe recovery mechanism in case something went wrong when configuration changes were applied.

... and much more!

Xoom is under active development, improving the usability, stability, safety and performance. New capabilities are regularly added based on internal innovation and customer feedback.

Xoom in Technical Terminology

Service Optimization is a complex suite of products built on top of a unified architecture. Its configuration has many heterogeneous elements maintained in different ways, using file management, the structure tool and other administrative tools. Some settings can be accessed and changed programmatically, while others are restricted to the point-and-click interfaces.

Xoom represents this multifaceted configuration as a single entity that can be saved, analysed and often changed in a unified way. In the process of unifying the representation, Xoom also identifies the interdependencies between different settings.

Configurations are represented in an industry standard XML format which allows the use of widely available tools and code libraries to further analyse the configuration and to extract the information from it. XPath and XSL are used widely within Xoom to implement configuration queries and reports.

Also, for the first time, Xoom implements the ability to programmatically change most parts of the configuration. This ability is used by its tools in order to provide its unique, previously unavailable capabilities.