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For Immediate Release

VIStology announces BaseVISor 2.0 – an inference engine suitable for Cognitive Radio implementation

Framingham, MA – June 15, 2011 – VIStology, Inc., a leading semantic technology company, announced the availability of BaseVISor 2.0, a new release of a powerful semantic inference technology enabling organizations to implement Cognitive Radio by providing flexible and collaborative adaptation and interoperability. BaseVISor features a highly efficient forward-chaining inference engine, optimized for reasoning with any ontology expressed in OWL 2 RL (a W3C standard) and user-defined declarative rules. BaseVISor 2.0 can be embedded in existing software radios and extended with procedures written in an imperative language to meet application-specific requirements. It can be deployed as a RESTful or SOAP-based Web service and a mobile version can be installed on the Android platform.

BaseVISor 2.0 has been successfully deployed on the GNU Radio based CR on top of CORBA middleware and demonstrated at the SDR'10 Technical Conference. It dynamically reasoned over incoming control messages and operational radio parameters in order to collaboratively perform link optimization. Control messages were expressed in OWL 2 RL and embedded in the payload of a standard waveform.

Use of OWL 2 RL in a Cognitive Radio maximizes the number of locally inferable facts and thus decreases the size of control messages exchanged between the radios.

BaseVISor 2.0 can also be used to determine compliance with security policies and to reconcile access control and information exchange among applications and resources across distributed domains.

BaseVISor 2.0 Features:

Rule Editing: A rule editor for BaseVISor is available and provides rule templates, content assistance and syntax checking for BaseVISor's rule language.

Reasoning Performance: The axioms of OWL 2 RL provide scalable ontology-based reasoning without sacrificing expressive power. In comparison with other

leading inference engines, BaseVISor 2.0 has been demonstrated to be considerably faster in inference time and query time on standard benchmarking datasets.

User-Defined Functions: User-defined procedural attachments can be invoked from within a rule to perform complex calculations, complementing BaseVISor's built-in functions.

Query support: Enables a query to be specified in XML and compiled with the BaseVISor compiler.

Rule Salience: Enables the rule with the highest priority to be executed first. Used when more than one rule is activated at the same time.

Inclusion Mechanism: Provides a way for importing rules from the local file system or on the Web into BaseVISor for reasoning.

About VIStology

VIStology, Inc. is a software research and development corporation based in Framingham, MA, committed to the innovative design and development of adaptive and semantically rich information solutions. VIStology's technical expertise is in formal semantics, information fusion, situation awareness, object-oriented modeling & design, and artificial intelligence. Since 1997, VIStology has led numerous R&D projects funded through contracts with clients that include the US Army, DARPA, AFRL/AFOSR, ONR, and MDA.

Licensing

BaseVISor 2.0 can be licensed for academic and research use free of charge; all other uses require a commercial license. Contact sales@vistology.com.

For more information, visit http://www.vistology.com/BaseVISor/