c-Eclipse: A Cloud Application Management Framework for Eclipse

c-Eclipse is an an open-source, generic Cloud application management framework (CAMF) that leverages the reliable Eclipse platform for offering extensible graphical tools that enable interoperable description of Cloud applications and facilitate lifecycle management operations in a transparent and vendor-neutral manner. CAMF focuses on three distinct management operations, particularly application description, application deployment and application monitoring. To this end, it adopts the OASIS TOSCA open specification for blueprinting and packaging Cloud Applications. In addition it utilizes open-source tool kits such as Apache jclouds for portable across-Cloud application deployment, as well as Chef for writing "recipes" that orchestrate application configuration processes upon deployment. Furthermore, CAMF provides the necessary programming interfaces that enable Cloud developers to specify resource adaptation policies and desired actions, as well as various monitoring operations at different levels of an application's structure.More information can be found on: http://linc.ucy.ac.cy/CELAR/ceclipse/

Managing and Monitoring Elastic Cloud Applications

This demonstration showcases the functionality of an Elasticity Management Platform which is used to manage the full lifecycle of an elastic Cloud application. Two powerful and open-source tools are introduced: c-Eclipse: a framework for describing Cloud applications along with their elasticity requirements and deploying them on any IaaS provider; and JCatascopia: a fully-automated, multi-layer, interoperable Cloud monitoring system. More information can be found on: http://linc.ucy.ac.cy/CELAR/ceclipse/ and http://linc.ucy.ac.cy/CELAR/jcatascopia/

CELAR Architecture

Auto Scaling Resources is one of the top obstacles and opportunities for cloud computing: consumers can minimize the execution time of their tasks without exceeding a given budget. Cloud providers maximise their financial gain while keeping their customers satisfied and minimizing administrative costs. Many systems claim to offer adaptive elasticity, yet the "throttling" is usually performed manually, requiring the user to figure out the proper scaling conditions. In order to harvest the benefits of elastic provisioning, it is imperative that it be performed in an automated, fully customizable manner. CELAR delivers a fully automated and highly customisable system for elastic provisioning of resources in cloud computing platforms. c-Eclipse and JCatascopia are components integrated in the overall system.

g-Social

{flv}geclipse_Social{/flv}g-Social, is an extension, to Eclipse open-source environment, that provides a powerful, user-friendly, platform-independent toolset for users, application developers and administrators of Grid infrastructures. g-Social enables user collaboration and resource sharing through Online Social Networking (OSN) services, capitalizing on the success that these services have. More information can be found on: [http://ieeexplore.ieee.org/xpl/freea bs_all.jsp?arnumber=6404454&abstractAccess=no&userType=inst](http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=6404454&abstractAccess=no&userType=inst)

MashQL

{flv}MashQLlast{/flv}MashQL, a novel query formulation language for querying and mashing up structured data on the Web, doesn't require users to know the queried data's structure or the data itself to adhere to a schema. In this article, the authors address MashQL's challenges as a language (as opposed to an interface) in assuming data to be schema-free. In particular, they propose and evaluate a novel technique for optimizing queries over large data sets to allow instant user interaction

Traffic Modeller

{flv}TrafficModellerDemo{/flv} An open-source, graphical tool for the rapid high-level modeling and generation of vehicular traffic, called TrafficModeler. TrafficModeler supports a variety of traffic definition models representing a wide range of traffic patterns. A set of traffic generation algorithms are implemented to convert high-level models to output compatible with SUMO, a popular open-source microscopic traffic simulator. TrafficModeler drastically reduces the time and effort required to generate traffic for SUMO. Furthermore, it can be easily extended to support other traffic simulators and to incorporate new types of traffic.

VIVAGr

{mp4}movVIVAGr_NY{/mp4}VIVAGr is a graphical-oriented, real-time **visualization tool for vehicular ad-hoc network connectivity graphs**
. It enables the
effective synthesis
of structural, topological, and dynamic characteristics of
VANnet graphs
, with a variety of parameters that affect the characteristics of a vehicular ad hoc network (
wireless range, mobility models, road-network topology, market penetration ratio, and exhibited interference
). The tool
represents all active connections
in
real-time
mode using
mobility traces
using a visual encoding syntax to represent semantic meanings and the effect of mobility and topology on vehicular network specific properties. Our design allows researchers to explore and understand problems and issues related with vehicular ad-hoc networks and seek answers to several key questions about
the shape
and
the large-scale behavior
of vehicular communication network.