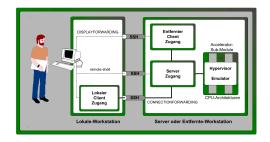# UnifiedSessionsManager
Virtualisation and Cloud Computing for Module and Systems Tests
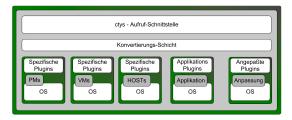
Medium and Major Projects

The UnifiedSessionsManager offers a number of unique solutions for software development and test providing common tasks of project members and project management.

These comprise simplified, thus time and cost saving creation, usage, inventory management, versioning, and administration of test environments assembled by distributed applications and systems. The technical focus are arbitrary applications founded by distributed client and server components. The present solution targets the neatless integration of test systems comprising various physical and virtual components within realistic runtime environments.

Therefore the UnifiedSessionsManager contains a framework with a base-toolset for the administration of distributed virtual systems. The contained components comprise functions for the automation of collection, registration, management and usage of physical and virtual machines as network nodes, additionally facilities for distributed execution of arbitrary commands. The security of remote interconnection is approved by usage of SSH.

The contained plugins comprise the major market share of commercial and Open-Source virtualisation solutions.

The UnifiedSessionsManager offers means for significant cost-reduction and enhancements of technical flexibility resulting in general timeline shortage and flexibility for faster adaption of customer requirements and assurance of internal compliances. The implemented innovative features enhance therefore the acceptance of customers and project members in order to assure the common success.

Application Examples

Software Development and Test

The particular advances for module and system test are the advanced applicability from the very first steps on of the development process. The early usage by individual developers enables the preperation of module and system tests and assures particularly for medium and major projects a premium quality from the beginning on - therefore excellent cost-efficiency and significant shortage of time-lines.

Test Inventories and Automation

The UnifiedSessionsManager provides particularly features for the comprehensive collection and registration of distributed test systems by fully automated scanners integrated to the scripting interface for customized automation. This enables due to current storage volume prices the setup of individual inventories for test and development environments by personal archives and versioning. This leads to enhaced overall flexibility and documentation of the development processes including subprocesses.

Distributed Development and Test

The contained toolset for inventory management and the handling of sub-data - so called Views - provides for location independence of task oriented flexibility, comprising geographically distributed locations. The complete encryption by SSH including graphical user interfaces, sets the prerequisites for the fast an secure ad-hoc interconnection of mobile work locations as well as the integration of home-offices.

From Host to Embedded Applications

The integration of CPU emulators with QEMU® enables the neatless application of intermixed embedded and host based systems. This is accomplished e.g. by the integration of VirtualBox® with support of QNX® and the provided development environment of the RTEMS project as a complete virtual machine with Fedora12®. The test automation is particularly provided by integration with DejaGNU, Expect and Tcl/Tk - as the standard regression test tool of the GNU project - and additional Unit-Test environments.

UnifiedSessionsManager
Virtualisation and Cloud Computing for Module and Systems Tests

Technical Data

Supported Host-Operating Systems 1.)
Linux**®**: CentOS, Debian, Fedora, Mandriva,
ScientificLinux, SuSE, OpenSUSE, Ubuntu
BSD**®**: FreeBSD, OpenBSD
SUN**®**: OpenSolaris, Solaris

Suppoted Hypervisors 1.)
KVM**®**, QEMU**®**, VirtualBox**®**,
VMware**®**(Player/Server/Workstation), XEN**®**

Supported Guest-Operatingsystems 1.)
Linux**®**: CentOS, Debian, Fedora, Mandriva,
ScientificLinux, SuSE, OpenSUSE, Ubuntu
BSD**®**: FreeBSD, OpenBSD
SUN**®**: OpenSolaris, Solaris
Microsoft**®**: Windows**®**: NT, 2000, XP, 200x, DOS
FreeDOS: Balder

Supported Client-Operatingsystems 1.)
Linux®: CentOS, Debian, Fedora, Mandriva,
ScientificLinux, SuSE, OpenSUSE, Ubuntu
BSD®: FreeBSD, OpenBSD
SUN®: OpenSolaris, Solaris

Supported Graphical User Interfaces 1.)
X11: Gnome, KDE, fvwm, xfce

Supported Consoles
CLI, XTerm, gnome-terminal, Emacs, RDP, VNC,
VMware, VMWRC

Install Pakages
Current supported formats are tgz(for all supported
platforms) and rpm(CentOS and additional).

Announcements
- OpenVZ, Unbreakable Linux®.
- Embedded-Applications with QEMU®.
- CUDA-Integration with GPGPU management.
- Management of Database-Servers.
- Testautomation with DejaGNU, Expect and Tcl/Tk
- Integration of Eclipse, and Emacs.
- Functionality as evaluation and training system.

1.) Partly limited functionality, for details refer to Releasenotes.

Licenses

BASE-Pakage:
- GPL3
  Software
- FDL-1.3 - with invariant sections
  Basic-Documentation, see Releasenotes.

DOC-Pakage:
- CCL-3.0 - NO-DERIV + NO-COMMERCIAL
  Extended documentation including the
  depicted concepts, processes and
  interfaces. Commercial - non exclusive -
  extensions are available.

Development

Ingenieurbuero Arno-Can Uestuensoez
Zentnerstr. 34
D-80798 Munich
Tel.: +49.89.27817287
WWW: http://www.i4p.com

UStID: DE192143924

Membership:

- IEEE
- FSF
- GI
- LinuxVerband e.V.
- VDE

Public release: 01.11.006u1 - 2010.07.13

Sales

Vertrieb Soft- und Hardware Arno-Can Uestuensoez
Zentnerstr. 34
D-80798 Munich
Tel.: +49.89.27817287

UStID: DE192143924