

The Next Wave in Virtualising Your Desktop

Virtualisation may be one of the over used terms in the IT industry but with cloud computing on the horizon, DCV is your best option for implementing a virtual environment for your Desktop.

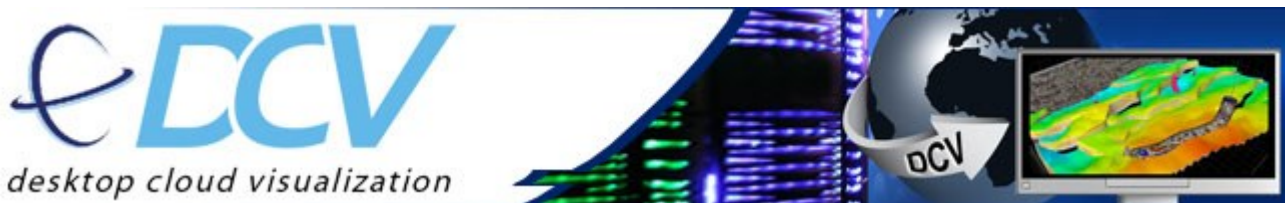
Given the trend from Virtual Networks, Compute and Storage then why not your Desktop? NICE Desktop Cloud Visualisation (DCV) is an advanced technology that enables Technical Computing users to remote access 2D/3D interactive applications over a standard network.

Engineers, geophysicists and scientists are immediately empowered by taking full advantage of high-end graphics cards, fast I/O performance and large memory nodes hosted in the "Public or Private 3D Cloud", rather than waiting for the next upgrade of the workstations.

The DCV protocol adapts to heterogeneous networking infrastructures like LAN, WAN and VPN, to deal with bandwidth and latency constraints. All applications run natively on the remote machines, that could be virtualised and share the same physical GPU.

In a typical visualisation scenario, a software application sends a stream of graphics commands to a graphics adapter through an input/output (I/O) interface. The graphics adapter renders the data into pixels and outputs them to the local display as a video signal.

When using NICE DCV, the scene geometry and graphics state are rendered on a central server, and pixels are sent to one or more remote displays. This approach requires the server to be equipped with one or more GPUs, which are used for the OpenGL rendering, while the client software can run on "thin" devices.



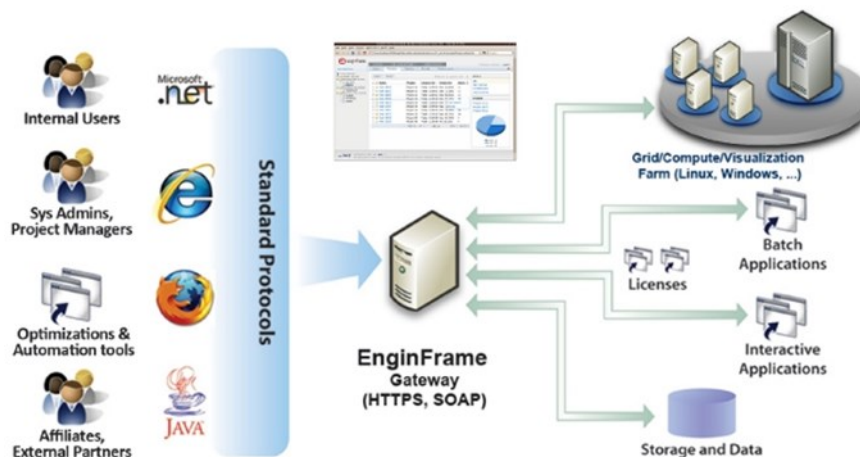
NICE / DCV Key Features:

- Enables high performance remote access to interactive 2D/3D software applications on low bandwidth/high latency
- Supports multiple heterogeneous OS (Windows, Linux)
- Enables GPU sharing
- Supports 3D acceleration for OpenGL applications running on Virtual Machines
- Supports multiple user collaboration via session sharing
- Enables attractive Return-on-Investment through resource sharing and consolidation to data centres (GPU, memory, CPU), including efficient working practices.
- Keeps the data secure in the data centre, reducing data load and saving time
- Enables right sizing of system allocation based on user's dynamic needs
- Facilitates application deployment: all applications, updates and patches are instantly available to everyone, without any changes to original code.



Nice also supply EnginFrame, the most advanced commercially supported Grid portal in the industry, and has a proven track record of successful production deployment within corporate networks and research Grids. EnginFrame enables efficient inter/intranet access to Grid-enabled infrastructures. HPC Clusters, data, licenses, batch & interactive applications can be accessed by any client using a standard browser.

The open and evolutionary framework of EnginFrame is based on Java, XML and Web Services, and facilitates deployment of user-friendly, application- and data-oriented portals. Users and administrators can easily submit and control Grid-enabled applications, as well as monitor workload, data, licenses from within the same user dashboard, hiding the heterogeneity and complexity of the native interfaces.



EnginFrame Highlights

- **Universal and flexible access to your Grid infrastructure.** Easy access over intranet, extranet or the internet using standard and secure internet languages and protocols
- **Interface to the Grid in your organisation.** Pluggable server-side XML services to enable easy integration of the leading workload schedulers in the market. Plug-In modules for all major Grid solutions including the Adaptive Computing Torque/MOAB, IBM LSF, Sun/Univa GridEngine, Altair PBS/Pro, EDG/gLite Globus-based toolkits, and provides easy interfaces to the existing computing infrastructure.
- **Security and Access Control.** Give encrypted and controllable access to remote users and improve collaboration with partners while protecting your infrastructure and Intellectual Property (IP). This enables you to speed up design cycles while working with related departments or external partners and eases communication through a secure infrastructure.
- **Distributed Data Management.** The comprehensive remote file management built into EnginFrame avoids unnecessary file transfers, and enables server-side treatment of data, as well as file transfer from/to the user's desktop
- **Interactive application support.** Through the integration with leading GUI Virtualisation solutions (including Desktop Cloud Visualisation (DCV), VNC, VirtualGL and HP-RGS), EnginFrame enables you to address all stages of the design process, both batch and interactive.
- **SOA-enable your applications and resources.** EnginFrame can automatically publish your computing applications via standard WebServices (tested both for Java and .NET interoperability), enabling immediate integration with other enterprise applications.

For more information on desktop cloud virtualisation, please do not hesitate to contact us.