

Octane Cloud Workstation

Technical Specifications

Hardware Specifications:

- Graphics: NVIDIA Kepler GPU with 4 GB of VRAM
- Processor: Intel Xeon CPU with 8 HT cores
- Memory: 15 GB RAM
- Storage: 100 GB HD + 50 GB ephemeral SSD

OTOY Software and Driver Specifications:

OTOY ships signed drivers for cloud PC which support the following devices and services through ORBX and ORBX.js:

Host GPU driver support:

- ORBX GPU Desktop Graphics: OTOY WDDM Aero virtual desktop (up to 2048x1536), DirectX 11, OpenGL 4.x, DXGI 1.1+ Application support
- ORBX Render: Built in OTOY Octane Render with integration across all major ADK apps: 3DS Max, Maya, XSI, AutoCAD, Revit, Inventor, MotionBuilder (in development for Q2'14)
- ORBX Compute: Built in OTOY OpenCL 1.2 driver/runtime/compiler for NVIDIA Kepler. Built on top of NVIDIA CUDA driver, compiled OpenCL directly to PTX, used for encoding/rendering (3rd party SDK being developed in partnership w/ NVIDIA)

Host Device I/O support:

- OTOY remote audio driver: speaker output, microphone input
- OTOY remote USB HID device driver (requires clients that support via raw input, could be extended to support 3D Mouse, Wacom tablet, Oculus Rift, Leap Motion, etc.)
- OTOY printer driver: supports remote image based printing and large format printer support
- OTOY Xinput driver: analog, gamepad, battery level, rumble pack support
- OTOY Clipboard driver: text, images, metafiles, OLE objects used by AutoCAD, MS Office, etc.
- OTOY droptarget process monitor: Drag and drop file and folder support (bi-directional on desktop clients)
- OTOY webcam driver (client->host, not available on all clients, in beta)

ORBX Client Graphics:

- local rendering of custom and system cursors sent from remote host session
- ORBX 2D compositor (in beta): resolution independent text (tff) and vector (SVG) overlays (with 3x2 transforms, and spline based animation), lua scripts, and pixel shaders.
- ORBX2 frame buffer streams (in beta) support up to 48-bit color (RGBA) + depth.
- ORBX 3D compositor (in bet): local canvas rendering for DX9, OpenGL draw commands from host session (in beta)
- UDP/rUDP streams handle LTE and WiFi wireless connections with heavy packet loss (not available on all clients or network environments where UDP is blocked. TCP fallback if UDP is not possible).

ORBX Remote Session Types:

- Console (for single app/game streaming)

- User Desktop (locked down user mode windows desktop, can't install services or modify environment)
- Admin Desktop (unlocked administrator desktop - can install software, services etc.)

ORBX.js HTML5 client:

- Pure JavaScript client (i.e. no Flash, no Java, no plug-ins)
- Supports all 5 major browsers: IE11+, Chrome/ChromeOS 27+, FireFox 22, Opera 16+, Safari 6.
- HTML5 client for mobile (beta): Safari iOS, Firefox OS and Android browsers (Chrome, Opera, Firefox, Maxthon)
- HTML5 desktop (beta) - Windows explorer, file system and desktop remain accessible even when instance is offline or not being remoted directly.
- HTML client includes applet to launch native client from JavaScript (on PC/OSX/Linux/iOS) and run the session as a secure fullscreen or windowed process, with much stronger encryption than a browser based https/wss stream.