

# Intelligent Desktop Virtualization



## Gain Control Without Sacrificing Performance with Scense User Workspace Management

An intelligent desktop virtualization solution featuring Scense User Workspace Management\* and intelligent clients powered by 2nd generation Intel® Core™ vPro™ processors lets users work the way they want to, without restrictions associated with traditional desktop virtualization. The result is increased levels of productivity and job satisfaction.

First-generation desktop virtualization (virtual desktop infrastructure, or VDI) gives IT administrators control. With virtual desktops that execute in the data center and stream to client devices, it is easy to lock down endpoints and control data and applications.

However, the personal business computing environment has changed. Users now expect their computers to do things that were almost unimaginable when VDI emerged. They want to access corporate data and applications from anywhere, on devices ranging from corporate laptops to personal tablets and smart phones. They expect a rich user experience with demanding, graphics-intensive applications. But that freedom puts data and devices under increased risk of loss, theft, and misuse, making it more important than ever for IT to be able to manage the organization's desktop infrastructure.

## Introducing Intelligent Desktop Virtualization

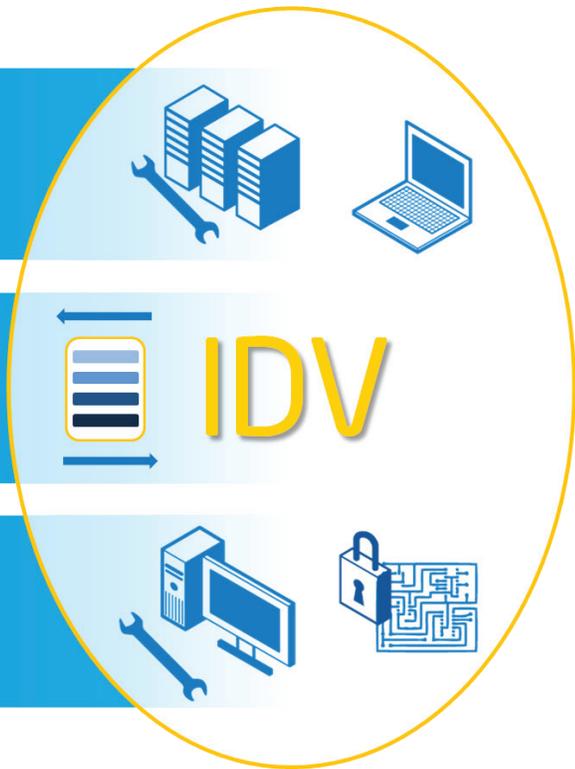
Intel believes that desktop virtualization is on the verge of an important evolution that will make desktop virtualization more sustainable by eliminating the need for compromise between performance for users and IT control. We call this next evolution *intelligent desktop virtualization* (IDV). Why is it intelligent? Because it is based on three fundamental principles that, when present, deliver the best of both worlds: control and security for IT and performance and freedom for users.



**Manage centrally with local execution**  
 IT manages a golden image, retaining full control over OS and application updates

**Deliver layered images intelligently**  
 IT manages the logical segments of the stack as separate layers, which are synchronized bidirectionally

**Use device-native management and security**  
 Administrators and software manage and secure endpoints using capabilities embedded in the hardware



With a complete solution that encompasses the three tenets of IDV, IT can implement desktop computing and management in a way that delivers four key benefits to the organization:

<b>No compromises for IT or users</b>	Everyone works with a golden image, providing control for IT and a true native computing experience for users.
<b>Better economics</b>	Fewer data center resources are required than in a VDI deployment. In cases where server-hosted VDI is necessary, IT can increase server VM density by offloading compute-intensive tasks to the local client.
<b>Operational excellence</b>	IT can work efficiently with unified virtual and physical management and remote out-of-band access.
<b>Unparalleled flexibility</b>	Intelligent PCs support and enhance all desktop delivery models and allow users to work online or offline.

## IDV with Scense User Workspace Management

Scense User Workspace Management is an example of an intelligent desktop virtualization solution. It allows users to access their settings, data, applications, and services on any capable device, in any location, whenever users want to work. While users enjoy this freedom, IT administrators do not have to sacrifice control. Scense takes advantage of IDV principles to deliver a rich user experience and intelligent flexibility.

### Rich User Experience and Flexible IT Control

Scense Workspace Management gives users the freedom to access their corporate applications and data whether online or offline, and from a variety of devices. It dynamically configures ready-to-use Windows applications and delivers them to users based on each user's context considering factors

## Scense Workspace Management Simplifies Desktop and Application Delivery

Intelligent Desktop Virtualization with Scense Workspace Management enables Scala College to serve dynamic applications and desktops to 3,000 students across multiple locations. IT administrators have centralized control and complete insight into all locations. They can also deliver and patch applications, configure desktops, and troubleshoot without desk-side visits, resulting in big cost savings.

Read the case study: <http://www.scense.com/images/pdf/Case Study Scala College.pdf>

such as user ID, platform, time and location, and others. These applications can execute locally on an intelligent client and take advantage of the client's capabilities to deliver a rich user experience. However, IT retains control of the user session and can easily block or patch applications as needed. Scense also supports multiple vendors and use cases because the dynamic applications it delivers can be packaged in a variety of formats including Microsoft Installer (MSI) files, VMware Thinapp\*, Microsoft App-V\* sequences, and Symantec Software Virtualization\* (SVS) files. Updates to the OS and managed corporate applications are handled by the Scense agent that manages communication between the endpoint and the server.

## Gain Intelligent Flexibility

Scense Workspace Management assembles a personalized workspace using a layered approach:

- **Operating system (OS):** IT manages this layer centrally and can lock it down based on configurable policies. The centrally managed OS layer is easy to patch, update, and secure.
- **Department layer:** This layer can contain corporate applications specific to a user's role and context.
- **Personal layer:** Users can install their own applications without affecting corporate layers.
- **Persona:** This layer preserves user profiles so that users can have a consistent experience across devices.

This layered approach resolves one of the challenges of traditional VDI deployments. Scense allows users to install personal applications and generate personal data. These changes are stored centrally as part of the user's profile. Then, when the user logs in to his workspace from a different device, the new applications and data are available.

## Dynamic Applications in a Personalized Workspace

Scense Workspace Management decouples the logical layers of the desktop stack from each other and from the underlying hardware. This layering transforms costly, distributed desktop environments into a cost-effective and manageable desktop infrastructure and simplifies application delivery. Administrators simply create and store virtualized application packages as objects in the Scense database, and the solution provisions the applications in real time, based on the user's context. Scense Workspace Management automatically applies the user's personal settings and company's IT policies wherever users log on and no matter which device they are using.

## Use Case: Bring Your Own Computer

Scense Workspace Management empowers IT administrators and users by enabling an increasingly popular use case: Bring Your Own Computer (BYOC). Under this scenario, users can choose the computer they want to work with and IT provides corporate applications using one or more virtualization technologies. With Scense, you can keep your BYOC options open. You can install a hypervisor on the endpoint and run a centrally managed corporate workspace on top of it. This image runs in a virtual machine beside the user's personal OS, which helps keep the corporate information secure. Scense can also provide self-service tooling so that knowledgeable users can interface with the hardware layer beneath the hypervisor.

Scense can also deliver a user's workspace without a hypervisor—simply by running corporate applications and data on the user's OS. This approach means you do not have to manage an OS layer, which can enable additional cost savings. With or without a hypervisor, when your users choose PCs powered by 2nd generation Intel Core vPro processors, you can take advantage of out-of-band management capabilities embedded in the hardware. Once activated, Intel® vPro™ technology allows you to remotely power cycle, configure, and diagnose a PC—even if it's unresponsive.<sup>1</sup>

## Learn More Today

Scense Workspace Management brings intelligence to desktop virtualization with highly flexible solutions that can eliminate compromises between user experience and IT control. IDV solutions such as Scense, which take advantage of capabilities on the local platform, can also deliver better economics and security than traditional approaches to desktop management.

Learn more today by visiting [www.scense.com](http://www.scense.com).

To learn more about desktop virtualization and how it can help improve your IT infrastructure, visit the Intel IT Center at [www.intel.com/desktopvirtualization](http://www.intel.com/desktopvirtualization).

## Scense Workspace Management Components

**Scense Database:** Installed on Oracle or Microsoft SQL Server, the database contains data related to applications, user settings, desktop configurations, and other elements.

**Scense Server:** The engine that communicates tasks received from Scense Executive to the database engine. The Scense server components make full use of COM+ scalability.

**Scense File Share:** Stores all application packages and virtualized applications intended for users. When a user requests an application, the package installs it, starts it, streams it, or activates it.

**Scense Client and Scense Executive:** Reside on the endpoint and work together to execute the Scense instructions on the desktop and give feedback to the user. If the client software is unable to retrieve instructions from the Scense database (such as when the computer is disconnected from the network), the Local Cache is used.

**Local Cache:** To guarantee a functional desktop when a connection to the central database is unavailable, communications related to the desktop are also stored in a local cache.

**Scense Management Console:** Administrator interface for managing and controlling information stored in the database.



<sup>1</sup> Requires activation and a system with a corporate network connection, an Intel® AMT-enabled chipset, network hardware, and software. For notebooks, Intel AMT may be unavailable or limited over a host OS-based VPN, when connecting wirelessly, on battery power, sleeping, hibernating, or powered off. Results dependent upon hardware, setup, and configuration. For more information, visit <http://www.intel.com/technology/platform-technology/intel-amt>.

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