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### **Executive Summary/ The Problem ThinLaunch solves**

ThinLaunch Software, LLC (ThinLaunch) architects, develops markets and supports software designed for use on a business PC, Thin Client, or Ultra-Mini PC (hereafter called PC) running a Microsoft Operating System.

The Software effectively turns a physical PC into a “software based” Thin Client. The Thin Client concept is directly associated with centralized computing, taking applications and the entire Operating System off the desktop, and moving those functions into the data center. The Thin Client has purported advantages and many disadvantages (see attached document, “The Cost of the Desktop in a VDI Environment” (VDI= Virtual Desktop Infrastructure)).

System Administrators spend an inordinate amount of time getting each PC properly locked down to the functionality deemed appropriate for the group to which the user is assigned. Even then, users many times find a way to affect the PC by installing their own applications or by deleting files, visiting websites and performing personal tasks on the company PC. ThinDesktop removes this possibility with an application which controls and monitors the executable the user has access to.

Turning a PC into a Thin Client is also called “repurposing the PC”, which reduces capital expenditures by 90% over the cost of a Thin Client. Repurposing can also be done to delay capital expenditures, and has significant additional value with regard to Microsoft Licensing (about a \$300.00 advantage per PC on Software Assurance over a 3-year period, considered the depreciation life of a PC).

In addition to repurposing an existing PC, nearly half of current customers use the software on a “new” device, gaining control by limiting that device to its specific application or connection. While this alters the hardware savings, lower Microsoft Licensing, higher end user productivity, fewer help desk calls and less administrator involvement all still hold true.

ThinLaunch software products take what are lengthy, manual system administration processes and automate them. The first application (Thin Desktop) repurposes and locks

down a PC to work well in a centralized desktop environment (more on this later). The second application (Thin Browse) allows the administrator to manage/limit access to very specific resources where the Browser is the chosen entry point to applications and web locations.

An important aspect of both products is the administrator uses existing tools and skills, there is no learning curve to utilize the applications to simplify their processes, nor is there a new management tool or server required.

In addition to simplifying one aspect of desktop management, the automation and standardization of such tasks increases desktop security and lowers the total cost of deploying and managing desktops. Both CAPEX and OPEX are reduced.

The first product, Thin Desktop, had its first paying customer in September of 2008. Today, with over 250 customers, there have been dramatic enhancements to the software based on customer and partner input, to specifically bring more value to VMware Microsoft and Citrix environments.

A second product (Thin Browse) is currently in limited release with 25 customer purchases. A 3<sup>rd</sup> product is on schedule for release in 2011.

ThinLaunch was created because the founders were sure there had to be a simpler and better way to lock down and manage access to Citrix, Microsoft Terminal Services, VMware Virtual Desktops and specific applications. The ThinLaunch applications are simple to use and deploy, they delay and decrease capital and operating expenses, they ease desktop administration and improve end user productivity.

ThinLaunch is prepared to grow and is aware of the need for capital to accomplish this. Currently ThinLaunch is self-funded, has 5 members with ownership.

### **The Market for Thin Desktop and Thin Browse**

There are 4 key areas where ThinLaunch products are a perfect fit, primarily revolving around desktop and application virtualization, and other forms of centralized computing. The four areas are Desktop Virtualization, Terminal Services, Managed Desktops, and managed browser access.

Access to these virtualized desktops and applications requires a device which might be a phone, a tablet, a Thin Client, a Mac. The most common access device in Corporations around the world is still the PC, whether it is a desktop or laptop PC. The estimated number of Corporate PC's worldwide is 500 million.

As a bit of further explanation regarding “desktop virtualization”, a short primer follows:

*The components of a Virtual Desktop, and why companies are virtualizing them*

Technology and user requirements are pointing in the direction that a centralized virtual desktop is a more efficient, less painful way to deliver applications to corporate end users. Amazon Web Services, Cloud providers and the internal Cloud (IT Infrastructure) all play a part in providing the landing spot for applications. Challenges abound, TCO is a major hurdle and good solutions are arriving. There are three key technologies to make centralized desktops work.

1. The Access Device- keyboards, mice, touch screens, networking and printing all require local computing. The laws of physics say that it would be nearly impossible to have all of that activity going round trip to your virtual machine. Some function must reside locally.
2. Application delivery- applications can be locally installed or in the cloud or in the data center on a virtual machine, or can be streamed to a PC or a virtual machine. Some applications should be run locally and others work very well in a virtual environment. Performance, security and manageability are often enhanced by centralizing applications.
3. Virtual desktops run the PC Operating System and its functions in the data center on a server. The hardware is shared and common, applications are easier to install and deploy, data is more secure, and it is easy to build and deploy PC's. Updating an application in the virtual world is just plain easy compared to updating physical desktops.

### **What Market Need does Thin Desktop Address?**

The market addressed by Thin Desktop is a sub-set of Corporate PC users. Our research indicates many companies have 30-40% of their users who may benefit from the tighter control and management of the desktop Thin Desktop provides. For example:

Move to Windows 7	Re-purpose existing PC's to connect to a Win7 Virtual Machine
Student	Classroom focus on what the teacher is teaching
Virtual Machine	Access to desktop in virtual infrastructure
Factory Floor	Limit device to manufacturing process
Public Library/Kiosk	Access (controlled) to Internet or Intranet
Terminal Services	Display centralized applications
Call Center	Improve productivity by providing access to specific resources
Task-based workers	Workers who leave their PC at work when they go home
POS Device	Access limited to single application and attached devices

ThinLaunch's first application, Thin Desktop, turns a PC into a software-based Thin Client. It locks down and monitors a single application defined by the system administrator. When using an existing PC for this function, the customer has a 90% savings on CAPEX costs (over the cost of any other device) and dramatically reduces Microsoft VDA licensing costs over alternative desktop choices. The installation of Thin Desktop simplifies desktop management, increases security and dramatically lowers the cost of owning, operating and managing a corporate user device.

Thin Desktop reduces the extensive amount of time and effort expended by Information Technology departments in the pursuit of control of user access to local PC resources. The accepted standard for granular management of local PC resources is Microsoft's Group Policy. Group Policy has extensive flexibility and with that comes significant complexity. Thin Desktop offers an alternative way to manage user access to PC resources, simplifying management and administration while continuing to use the System Administrator's knowledge and current management and deployment tools.

Where does Thin Desktop fit? The Thin Desktop application is an excellent fit for users working in a predictable environment every day while connected to a virtual desktop or Terminal Services environment (contrasted with those workers who may need access to locally installed applications). These people might work in call centers, customer service centers, use a Point of Sale device or use an industry specific or home grown application.

Simply put, Thin Desktop limits user access to an administrator defined function or connection. In many cases that connection will be to applications hosted on a server in the data center. A variety of use cases are described later in an attachment to this document. Thin Desktop limits user access while leaving intact the underlying capabilities required by the administrator.

### **What Market Need does Thin Browse Address?**

Thin Launch Software's second application, Thin Browse, is a front end, or "[Shell](#)" to a Microsoft Internet Explorer Browse (IE). The flexibility and capability of IE are legend, and IE is the primary browser installed on PC's in Corporations around the world. Thin Browse allows for simplified control of the user browser experience, creating better user access and security. Using the underlying IE engine for actual rendering and display of Internet accessed information means there is nothing proprietary about Thin Browse, but rather it is a tool that allows simple and granular control to all of the features of IE.

Where does Thin Browse fit? The Thin Browse application is an excellent fit for workers in Companies who may want a browser interface to certain applications, including technologies like Citrix Xen Desktop Web Interface. Easy control of exactly which web sites, or IP addresses, or Host Names the user is allowed to visit makes a lot of sense for workers who are tasked to do a specific job (school classrooms, call centers, public Kiosks, Hospitals, and so on) and where security (HIPPA regulated, Government sites, etc) is critical. Controlling exactly where a user may and may not go can have a very large impact on user productivity.

### **ThinDesktop and ThinBrowse, Complimentary Products**

Thin Browse can be locked down with Thin Desktop, which means that Thin Desktop launches and monitors and Thin Browse. If the user tries to get under the covers to other resources (than Thin Browse) on the local PC, Thin Desktop does not allow this. If the user turns off the PC and turns it back on in the hope of gaining access to other

applications, Thin Desktop re-launches Thin Browse and does not allow access to anything other than what the administrator has allowed.

Installed on a PC, Thin Desktop and Thin Browse make management and administration much simpler and more effective for the administrator responsible for controlling access to applications, URL's, Host IP addresses and local PC resources, while extending the life of the PC at a very low cost.

### **Benefits of using ThinDesktop Software**

Thin Desktop and Thin Browse can be viewed as green technologies. Due to the low cost of these applications and the ability to function well on older/existing devices, these applications are frequently used to extend the life of the existing PCs. Most companies plan to refresh desktops every 3 to 4 years. With Thin Desktop, customers routinely extend that life to 5 or 6 years. Rather than spending \$700.00 to replace a physical PC in a corporation, the IT department can deploy a virtual desktop or terminal services session at less than half the cost. The user can then connect to the desktop or terminal session using their existing PC (List price \$35.00 per copy, \$72.00 for the combination of Thin Desktop and Thin Browse, including first year maintenance and support). Deploying Thin Desktop is accomplished quickly and easily with existing management tools. There is no server side footprint associated with ThinLaunch applications and deployment/implementation is easily accomplished without any additional tools or cost to the end user.

The compelling reasons customers purchase ThinLaunch products are simplicity, ease of deployment, and low cost. Many customers have told us the "Total Cost of Ownership" of deploying Virtual Desktops did not make sense until they found and used ThinLaunch Software products. By using what they already have, by not having to buy new management tools, and by saving Microsoft Licensing costs, they were able to save between \$300.00 and \$500.00 per user in CAPEX costs, and \$200.00 to \$300.00 per user in OPEX costs over the 3-year life of the project.

An experienced system administrator could use Group Policies or other software tools to accomplish similar functionality to these applications, but only with a great deal of time and effort and ongoing support costs. ThinLaunch offers a unique, consistent way to address common PC management and access issues.

The "Hosted Virtual Desktops" trend in desktop computing (moving all of the data and applications back in to the Data Center) is a huge trend in IT and bodes well for existing and planned ThinLaunch applications. Microsoft's Terminal Services, Citrix's Xen App and VMware's View all require a single application for connection to the administrator defined applications set in the datacenter. ThinLaunch offers an innovative way to connect to these resources, often re-using the existing desktop, lowering management costs, and securing the PC.

### **Conclusion**

Information Technology professionals are key strategic partners in running their organizations and businesses. Each year the IT Department has a greater effect on the bottom line, is more important in getting products to market faster, has more responsibility for securing customer data, and addressing myriad regulatory requirements.

There are a variety of ways to meet the challenges noted above. ThinLaunch Software addresses two key components which keep IT Executives awake at night- cost and complexity. The ThinLaunch products are directly related to the desktop, and bring the value of lowering hardware costs, improving time to completion for desktop virtualization projects, and removing the learning curve associated with alternate access devices.