For desktop virtualization and corporate cloud computing
Samsung innovations for the way you do business

To stay ahead, businesses must avail themselves of every advantage at their disposal. Samsung is dedicated to providing those advantages, year after year. With a focus on boosting productivity and efficiency through innovative technology, Samsung offers differentiated products and solutions.

It’s how we became the number one display manufacturer in the world, and it’s why we’re pushing technology even further by introducing an all-in-one thin client. Samsung thin clients offer a cutting-edge virtualization solution for any business that wants to improve productivity and lower costs, while ensuring sensitive data remains secure.

As ways of doing business continue to evolve, Samsung will remain at the forefront of optimized solutions and services that advance business. As will our customers.
To maximize the benefits of desktop virtualization, it's important to simplify the desktop endpoints. Samsung thin clients do just that by replacing typical PC software stacks with an embedded OS that has been streamlined for access only. During normal operation, this lightweight software layer runs in a read-only mode which protects it from malware and tampering. Unlike zero clients, however, thin clients retain PC-like utility with a read-write Admin mode for adding device drivers, security updates, VPN, Office Viewers and more. For any local programs that might require semi-regular updates, Samsung includes a filtering system which allows trusted updates to occur without exposing the entire software layer to unauthorized writes. Overall, Samsung thin clients reduce overhead at the edge of the network, without sacrificing the versatility you’ve come to expect from your typical business PC.
Virtualization completed

Thin and full-featured

Samsung thin client displays feature a unique all-in-one design that enhances productivity and versatility. Only Samsung thin client displays combine Samsung’s industry-leading screen technologies with class-leading virtualization features. Samsung thin client displays maximize flexibility, ease of deployment and user economics. With Samsung thin client displays, it’s never been easier to provision virtual desktops.

Integrated corporate cloud connectivity
- Users can connect to a variety of hosted cloud environments, without the overhead of a PC
- Toggle between Citrix applications, access a virtual desktop, or log in to a corporate HR site from the local web browser

Expandable functionality
- DVI-I Out for dual digital display
- Matching Samsung business monitors are available
- Increases user productivity, accuracy and satisfaction

All-in-one design
- For a clean look and more workspace
- Fewer devices mean reduced power consumption and easy deployment

Wall mount support
- Compatible with all VESA standard accessories
- Expand viewing capability with flexible wall or arm mount accessories

Peripheral support
- Reduce clutter with built-in peripherals
- Built-in stereo speakers provide out-of-the-box sound support
- 4 USB 2.0 ports to accommodate more peripheral combinations, allowing you to add powered speakers, webcam, card/badge reader, keyboard, mouse and printer
- 2 high-powered USB 3.0 ports for fast charging of your smartphone or powering of a temporary storage device

Superior ergonomics
- Height Adjustable Stand (HAS) pivots, tilts and swivels
- Ensures adjustability that accommodates any user

AMD G-Series processor
- 2.2 GHz Dual Core AMD G-Series processor delivers ultra-high performance while using less power than previous generation 1 GHz chipsets
Peace of mind

Samsung displays are known for their reliability. We have the confidence to offer a 3-year warranty on all Samsung thin clients. We also provide dedicated B2B technical support.

60% Reduction in electricity use

Reduce electricity use by 60%

Thin clients connect directly to the network, so there’s no need for a power-hungry PC. Low heat and low power consumption reduce energy and cooling costs. In fact, electricity can be cut by at least 60% when compared to a traditional PC and monitor setup.

3-year Warranty on all thin clients

Warranty on all thin clients

Efficient integration

Samsung thin clients are optimized for fast and easy access to desktop virtualization resources in the corporate cloud. Their small footprint software stack allows them to be remotely managed to minimize employee disruption. And stateless hardware means greater reliability, longevity and affordability.

Seamless integration

Samsung has partnered with leading desktop virtualization companies to integrate a full suite of communication protocols. Built-in ICA, RDP and IE technologies make it simple to connect your users to your corporate cloud. Cloud devices can be deployed quickly and are available in a variety of sizes and form factors for maximum flexibility. With sensitive information centralized and secured in a business cloud (data center), your user environment is easier to deploy, maintain and manage while being less vulnerable to security risks.
Solutions for today’s go-anywhere world
Solutions from an industry leader

Samsung is an industry leader not only in display technology, but also in communication technology. Our macro view of the communications environment allows us to create complete solutions that benefit business.

Follow Me experience

Many of today’s business users, such as clinicians, brokers and corporate executives, require mobility. Desktop virtualization centralizes their data for greater transparency across various types of endpoint devices. With virtual desktops centralized on a server-side host, users can now access their sessions from almost any device in any location. As they switch to a different device, they simply log into their virtualized session from the new device, and their session follows them. Licensing and built-in security features prevent users from having simultaneous sessions running on multiple devices.

Because of our all-encompassing product portfolio, Samsung is able to offer users a seamless experience like no other. The corporate user can now stay productive while on the go by accessing his/her virtual desktop from a Samsung Galaxy Phone, Galaxy Tablet, ATIV Book 9 Mobile PC, or Zero Client.

Simplified and secure Single Sign-On

We partnered with Imprivata who provides OneSign® Single Sign-On (SSO). It greatly simplifies the login process. Users sign on once, then instead of logging in each time throughout the day, they simply scan their personal badge to automatically log into their session. And with badge readers positioned throughout their network, users can easily and conveniently access their session from any shared device.

Desktop virtualization alliances

**VMware**

Samsung thin client displays are VMware Ready. VMware Ready is a comprehensive validation program that ensures VMware-specified integration and interoperability requirements have been met. The result is reliable connectivity to VMware’s Horizon View (VDI) and Horizon Air (DaaS) cloud environments.

**Citrix**

Samsung thin client displays are Citrix HDX Ready. HDX Ready is a comprehensive validation program that ensures Citrix-specified integration and interoperability requirements have been met. The result is reliable ICA communication to Citrix XenApp (Application Virtualization) and XenDesktop enhancements built-in. HDX adds multimedia redirection (MMR) capabilities for a smooth video streaming experience, and USB redirection to expand peripheral support.

**Microsoft**

Samsung thin client displays come with native WES 7P (Windows Embedded Standard 7 Pro) which has been optimized for cloud access. In addition to VMware and Citrix support, WES 7P includes RDP communication to Microsoft’s Remote Desktop Services (RDS) with RemoteFX multimedia enhancements built-in. RemoteFX adds multimedia redirection (MMR) capabilities for a smooth video streaming experience, and USB redirection to expand peripheral support.

**AMD**

Samsung thin client displays are built around the AMD 2.2 GHz Dual Core GX222 APU (Accelerated Processing Unit) which is among the highest performing dual core processors in the thin client space. The G-Series APU combines the CPU, GPU and I/O controller into one chipset for a more efficient design that keeps energy costs down. AMD’s G-Series chipset changes the value equation to deliver a world-class visual experience with PC-like multimedia performance.

**IGEL**

IGEL offers a cost-effective operating system that has been engineered specifically for accessing modern cloud environments. IGEL Linux is not only an ultra-thin operating system designed to minimize client-side administration, it has also been hardened for greater security. Mid-life firmware updates can be automated remotely using IGEL’s UMS software suite. IGEL software simplifies the desktop while reducing IT overhead.
Featuring a Linux OS, Samsung TC-L Series thin client all-in-one displays enable the most advanced client-server communication protocols such as ICA/HDX for accessing Citrix XenApp/XenDesktop, RDP/RemoteFX for accessing Microsoft RDS, Blast Extreme for accessing VMware View, and Firefox for accessing the internet. Inside the Linux interface, you can toggle between published Citrix applications, access a virtual desktop from their VMware server farm, or log in to a corporate intranet from the local web browser.

*No integrated WiFi, but 3rd party USB WiFi dongle can be added (support is vendor responsibility)

1. DC 14V
2. DVI-I Out
3. LAN
4. USB 2.0 x 2
5. USB 2.0 x 2
6. VGA In
7. USB 3.0 x 2
8. Mic
9. Headphone

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**Connectivity**

1. DC 14V
2. DVI-I Out
3. LAN
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**Features**

- Operating System: IGEL LINUX
- Client Sessions: Citrix XenDesktop / XenApp Client (HDX/ICA), Microsoft RDP / RemoteFX, VMware Horizon Client (View, PCoIP, Blast Extreme)
- Multimedia Codecs: Audio: MP3 | WMA | AAC; Video: WMV (VC1) | H264 | MPEG-4 | MPEG-2
- Print Services: LPD / IPP
- Software Maintenance One Year
- Automation / Management Support: IGEL UMS5 (Universal Desktop Management Suite 5)
- Certifications: VMware Ready, HDX Ready, Microsoft RemoteFX

**Input / Output**

- USB 2.0 x 4
- USB 3.0 x 2
- LAN (RJ45, Gigabit)
- Headphone Out
- MIC In
- VGA-In (15 pin D-SUB In)
- DVI Out

**Power**

- Input: 100-240 VAC (50 / 60 Hz)
- Power Supply: External
- Power On: 45W
- Typical: 26W
- Stand-by: 2.7W

**Accessories**

- Speaker: 1W x 2 (Stereo)
- Mounting Support: VESA 100 x 100
- Stand: Tilt, Pivot, Swivel, Height Adjust

**Warranty**

- 1 Year Extended Warranty: P-LM-1C3X23A / P-LM-1C3X26A
- 2 Year Extended Warranty: P-LM-2C3X23A / P-LM-2C3X26A

*No integrated WiFi, but 3rd party USB WiFi dongle can be added (support is vendor responsibility)
Samsung TC-W Series all-in-one displays

Windows-embedded thin clients

Featuring a Windows OS, Samsung TC-W Series thin client all-in-one displays enable the most advanced client-server communication protocols. They include ICA/HDX for accessing Citrix XenApp/XenDesktop, RDP/RemoteFX for accessing Microsoft RDS or VMware View, and Internet Explorer for accessing the internet. Inside the Windows interface, you can toggle between published Citrix applications, access a virtual desktop from their VMware server farm, or log in to a corporate intranet from the local IE web browser.

*No integrated WiFi, but 3rd party USB WiFi dongle can be added (support is vendor responsibility)

1. DC 14V
2. DVI-I Out
3. RJ45 LAN
4. USB 2.0 x 2
5. VGA In
6. USB 2.0 x 2
7. MIC In
8. Headphone Out

**Connectivity**

**Category** | **Features** | **TC222W, TC242W**
---|---|---
Panel | Size | 21.5", 23.6"
| Panel Type | TN, LED Backlit
| Aspect Ratio | 16 : 9
| Brightness (Typical) | 250 nits / 300 nits
| Contrast Ratio (Typical) | 1000:1
| Response Time (G to G) | 5 ms
| Maximum resolution (H x V) | 1920 x 1080, (1920 x 1200)
| Colors supported | 16.7 million

Client | Processor | AMD Steppe Eagle G Series, Model: GX-222, 2.2GHz Dual Core
| Graphics | AMD Radeon R5E
| Audio | Realtek ALC282
| Networking | Marvell 88E8055 Gigabit LAN
| Memory (Socket) | 4GB DDR3
| Flash | 32GB SSD
| Ethernet | 10/100/1000 Ethernet (RJ45)
| Wi-Fi | No*
| Fan/Fanless | Fanless

Software | OS | Windows Embedded Standard 7, Service Pack 1 – 32 Bit (M&S 7 SP1 – 32 Bit)
| Client-Side Software | Microsoft RDP 7.1 w/RemoteFX
| Citrix ICA/HDX 12.3 / Receiver 4.2.100
| VMware View 5.11 / Enhanced Write Filter (EWF) / File Based Write Filter (FBWF) / Horizon Client 3.3.0
| Internet Explorer 8
| Media Player 12
| Remote Management | Magic RMS Pro
| Cloud Access Support | Microsoft Remote Desktop Servers, Citrix XenDesktop / Xen Apps, VMware Horizon View / Air, Amazon Workspaces

Signal | Input / Output | USB 2.0 x 4, USB 3.0 x 2
| Headphone Out, MIC In
| VGA-In (15 pin 0.5GBH In), DVI-Out
| Input | 100-240 VAC (50 / 60 Hz)
| Power Supply | External
| Power On | Maximum 58W
| Typical 25W
| Stand-by | Less than 2.7W

Accessory | Speaker | 1W x 2 (Stereo)
| Mounting Support | VESA 100 x 100
| Stand | Tilt, Pivot, Swivel, Height Adjust
| Energy Star | Energy Star 6.1

Certification | 1 Year Extended Warranty | P-LM-1C3X23A / P-LM-1C3X26A
| 2 Year Extended Warranty | P-LM-2C3X23A / P-LM-2C3X26A

*No integrated WiFi, but 3rd party USB WiFi dongle can be added (support is vendor responsibility)
IGEL Universal Management Suite UMS5
For TC-L Series or TC-W Series thin clients

The IGEL Universal Management Suite sets the benchmark for the management of modern thin clients. It offers a host of features that ensure easy, fast and secure management of large groups of clients, with support for many protocol agents and software tools. Supporting a variety of operating systems, databases and directory services like Microsoft Active Directory, the Universal Management Suite is easy to integrate into any environment. A complete and complimentary version of the Universal Management Suite is bundled with every Samsung TC-L Series IGEL Linux thin client, and is available for purchase on the TC-W Series.

Profile
The Universal Management Suite (UMS) is an easy-to-use yet powerful automation tool that allows you to remotely manage your Samsung thin clients, so support costs are kept to a minimum. It's open and network friendly, so it fits easily into your organization’s existing infrastructure.

Typical uses: IT automation
Configuration profiles are automatically inherited by each device as they first attach to the network.

As cloud environments change, new protocol agents can be deployed to any group of devices in seconds with a simple drag-and-drop command.

Mid-life firmware updates can be scheduled for off-peak hours to minimize risk of interruption and maximize user productivity.
Economical and user-friendly

Fast installation
Installation Wizard simplifies setup.

Easy to administer
Most hardware and software settings can be made with just a few clicks of the mouse.

Uniform user interface
The user interface for UMS follows the same theme as the local thin client configuration screens. The additional remote management functions give the administrator complete control in the familiar, proven environment.

No scripting
Although scripting is supported, you will only need it for controlling the thin client configuration in the most exceptional circumstances.

Asset management
Automatic capture of all your hardware information, licensed features and installed hotfixes.

Comment fields
For various information such as location, installation date and inventory number.

Open architecture

Support for numerous operating systems
The UMS can be run on all known versions of Microsoft Windows Server and Linux.

Access is independent of the operating system
The configuration console operates on the basis of Java and enables the system to be administered from any device with the Java Runtime Environment.

Secure and robust

Encrypted communication
Certificate-based SSL-encrypted communication between remote management servers and clients to protect the system against unauthorized reconfiguration of the equipment.

Failsafe upgrade function
If power outage or loss of network connection occurs while the update is in progress, it will still remain usable. The update process will be completed the next time the machine is rebooted.

Scalable and efficient

Simplify thin client visibility in large network environments
The IGEL UMS can be scaled to accommodate several thousand thin clients that are deployed across large networks with multiple subnets (may require extension).

Profile inheritance
Thin clients that are organized into groups can automatically inherit the configuration profile associated with that group.

Automated deployment
IGEL thin clients can be automatically assigned to a group on the basis of either the relevant subnetwork or a list of MAC addresses.

Comprehensive support for all settings
Most IGEL thin client settings, such as user preferences or session configurations, can be applied remotely.

Multi-tenant administration
Large organizations can authorize a number of system administrators for different levels of control and/or group-based authorization areas.

Task automation
Maintenance tasks can be automated and scheduled for off-peak hours so that day-to-day operations are uninterrupted.

VNC shadowing
Support desk administrators have remote access to thin client screens to enable them to rapidly identify problems and demonstrate solutions directly to users.

Linking to enterprise management systems
With the help of the optional IGEL Management Interface (IMI), the UMS can be linked to existing enterprise management systems (e.g. Microsoft SCCM or IBM Tivoli) via a standardized REST API.

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**IGEL Universal Management Suite (UMS) Specifications**

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<th>Supported Platforms</th>
<th>Supported Languages</th>
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<tr>
<td>UMS Server</td>
<td>English</td>
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<tr>
<td>UMS Console</td>
<td>German, French, Dutch</td>
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<tr>
<td>UMS Console</td>
<td>Chinese (Simplified, Traditional)</td>
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<tr>
<td>Database</td>
<td>English</td>
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<tr>
<td>SSL Communication</td>
<td>German, French, Dutch</td>
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<tr>
<td></td>
<td>Chinese (Simplified, Traditional)</td>
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</tbody>
</table>

Microsoft Windows Server 2003 / 2008 R2 / 2012
Ubuntu 10.04 (32 bit) and 12.04 (32 bit)
Redhat 6 (32 bit)

Microsoft Windows XP, Microsoft Windows Vista, Microsoft Windows 7
Ubuntu 10.04 (32 bit) and 12.04 (32 bit)
Redhat 6 (32 bit)

Oracle 10g / 11g
Microsoft SQL Server 2008 / 2008 R2 / 2012 – Cluster Support
PostgreSQL Version 8.2 and Above
Apache Derby 10

User / Password Authentication
Active Directory groups can be used for access rights management
Local Client Certificates
Full and Reliable Backup Functionality
Failover Mode

The IGEL Universal Management Suite is bundled with every TC-L Series thin client display.
Manage your Samsung cloud displays easily and efficiently with Samsung MagicRMS Pro remote management software. It includes real-time device status monitoring and the ability to upgrade firmware remotely to all devices, making it an essential management tool for thin client networks.

**MagicRMS Pro product configuration**

MagicRMS Pro consists of a powerful server which is connected to a database and console. The database stores all the information needed to control the monitor, while the console allows you to manage your network monitor.

- MagicRMS Server is installed on any host
- SQL Database stores thin client asset information
- MagicRMS console can be installed on any computer

**Diagram**

- Server
  - SQL Database
  - Management Server
- Administrator's Computer
  - Management Console
- TCP connections between server and console
- Clients: Samsung Cloud Computing Monitor
MagicRMS Pro makes cloud display management simple. It also features a real-time error detector and an efficient asset management system, allowing you greater control.


MagicRMS Pro offers extensive functionality, for improved connectivity and productivity.

- **Device control**
  - Power management
  - Shadow/configure

- **Visibility**
  - Device discovery/scanning
  - Collect asset information (H/W + S/W information)

- **Reporting**
  - Asset reporting

- **Deployment**
  - Mass firmware updates (QFEs, Hotfixes and Service packs)

- **Asset management**
  - Device grouping
  - Job scheduling
  - MS-SQL compatible

- **Easy to use**
  - Intuitive Windows UI
  - File tree grouping structure

MagicRMS Pro offers extensive functionality, for improved connectivity and productivity.
Thin clients for every business workday
Thin client versatility and productivity

Thin clients are ideal for any organization that wants to improve productivity, lower support costs and protect sensitive data.

### Ideal Sectors and Deployments

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<tr>
<th>Sector</th>
<th>Ideal for</th>
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<td><strong>Healthcare</strong></td>
<td>Nurses Stations, Emergency Rooms, Patient Rooms/Wards, Admissions/Administration, Labs and Exam Rooms</td>
</tr>
<tr>
<td><strong>Finance</strong></td>
<td>Bank Branches, Trading Floors, Customer Contact Centers, General Offices, Disaster Recovery Sites</td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td>Computer Labs, Classrooms, Libraries, Administration, Common Areas</td>
</tr>
<tr>
<td><strong>Government</strong></td>
<td>State and Local Services, Federal and Central Agencies, Emergency Response Centers, Military/Intelligence Analysis, Remote Locations</td>
</tr>
<tr>
<td><strong>Corporate</strong></td>
<td>Customer Support Centers, Administrative Offices, Branch/Remote Offices, Factories/Warehouses</td>
</tr>
</tbody>
</table>

**Healthcare**
- Smart Care: access, efficiency and regulatory-compliant
- EMR is centralized and secured behind the corporate firewall
- Secure SSO (Imprivata) badge access that’s fast and easy
- Follow Me user sessions for access anywhere, on any device
- Hi-res graphics for viewing ultrasound, X-ray and MRI images

**Finance**
- Innovation, efficiency and security
- Multi-monitor for greater productivity
- Performance and hi-res streaming video
- Centralized data with secure endpoints
- All-in-One designs to free up workspace

**Education**
- Limit tampering/theft with an All-in-One design
- Reduced set up, deployment and service costs
- Employ thin clients throughout the desktop to maximize investment
- Smart usage
- Follow Me user sessions for hardware-free class changes
- Secure SSO (Imprivata) access that’s fast and easy

**Government**
- Harden data security by centralizing sensitive data to a secure cloud or data center
- Reduce IT staff’s end-client workload to allow focus on more critical IT priorities
- Improve employee productivity by reducing work space clutter
- Provide high-resolution displays that can be adjusted to each employee’s needs

**Corporate**
- Improve IT and employee productivity while cutting operating costs
- Create a more productive work environment with a clutter-free work space, high-quality monitors and ergonomic features
- Reduce IT service calls and centralize end-user computing
- Work more economically with dramatically lower electricity and support costs