Information Kit

Version 1 – Rev. 1

Sales / Pre-Sales Technical information kit

Document Version 1

Chip PC Technologies

Chip PC Information Kit

About this kit

The following is an information kit designed to assist during sales meetings for Chip PC products.

This kit provides methodical and elaborate technical information regarding our products their features and capabilities.

How to navigate this kit

The information in this kit is organized according to the different parts of our solution, starting with a general overview of Chip PC as a complete solution including the main issues and bullets that are important to know about our products. Each of the following parts such as Xcalibur Global, Firmware Image or Plug-In is then sectioned according to the features that are most commonly asked for or needed.

For each feature mentioned there is an indication whether this feature is unique to Chip PC (**), as well as an indication whether this feature can be configured Locally on the device and or Remotely through our management software.

Content

Further Assistance

While this kite hopes to provide most of the technical information needed to present our products and be able to answer common questions, it is unlikely able to cover all possible areas.

For further assistance and information please contact Chip PC staff.

Note For a more complete understanding and knowledge of Chip PC products and solutions it is recommended to attend Chip PC sales training.

Chip PC as a complete Solution

What makes a complete Thin-Client solution?

Thin-Clients are rapidly becoming the preferred alternative for PCs in corporate environments where server based computing is implemented.

It's been realized that in order to connect to a terminal server session there is no need to having a PC with a gigantic vulnerable operating system which requires expensive and breakable hardware.

Thin-Client devices provide an easy, secure and cost effective way to connect users to a terminal server session where all their applications and data reside.

A Thin-Client solution becomes complete once successfully incorporating the following three elements:

- Client Hardware
- Operating System
- Remote Management

The outcome of a successful Thin-Client implementation is replacing the user's PC with a device that runs on reliable and powerful hardware with a stable and upgradeable operating system which can be fully controlled from remote by an Administrator.

Such a solution makes it possible to rapidly deploy Thin-Clients, lower the cost of maintenance and prevent down time and data loss.

Why Chip PC?

Chip PC offers a complete Thin-Client solution by providing customers an end-to-end solution that includes:

- Chip PC Hardware – Efficient, reliable and powerful Thin-Client device hardware.
- Operating system – Small sized, modular, stable and widely supported.
- Management Software – Comprehensive yet flexible offering full remote Thin-Client control, including task automation, reporting, monitoring and redundancy.

Hardware and Firmware Features

Hardware

Dedicated Thin Client Hardware

Chip PC products are designed to be thin clients. Rather than using stripped-down, low-cost PC hardware, Chip PC hardware is specially designed for thin clients.

Chip PC provides a high quality product that is based on well known hardware brands which have been proven to be superior in performance, reliability and efficiency over competing products.

Key Hardware Components:

- AMD CPU – Chip PC thin clients use AMD Alchemy processors that are based on RISC cold-fusion technology. The AMD Alchemy CPU is a strong and fast processor that consumes little electricity (up to 5 Watts), generates very little heat and therefore has a long life-cycle.
- M-Systems Onboard Storage – The onboard storage is where the operating system is stored. Chip PC thin clients use M-Systems Disk-On-Chip to ensure having a stable and reliable storage that assures the integrity of data.
- Fast DDR Memory – Having fast DDR Memory provides high speed session performance. Chip PC Thin-Clients use DDR memory which is the next-generation DDR memory technology. DDR memory features faster speeds, higher data bandwidths, lower power consumption, and enhanced thermal performance.
- Dedicated Display Memory – A dedicated display memory allows for high performance display, as well as dual screen support (Hardware dependant).
- Integrated PKI Smart Card Reader – By using smart cards combined with digital certificates, Chip PC devices offer an efficient, flexible, and portable solution for any size enterprise needing to authenticate user identities.
- Wireless Connectivity – Chip PC USB Wireless LAN adapter is the perfect solution to enable fast, reliable high-speed wireless connectivity resulting in greatest productivity, efficiency and mobility.

Operating System

The ideal Thin-Client operating system

Chip PC Thin-Clients run a custom Windows CE based firmware that is designed for Thin-Clients. Chip PC provides a stable, secured and feature-rich firmware that is fully managed from remote.

Key Operating System Components

- Optimal for Thin-Clients - A Thin-Client's operating system that is capable of running client applications (ICA / RDP) that connect to a terminal server session in an efficient way.
- Efficient & Fast – Compared to other gigantic operating systems, Windows CE demands little hardware resources leaving more available power for the ICA / RDP sessions.
- Widely Supported – Windows CE is the most popular and widely spread Operating System for embedded devices. This assures future support and high quality code.
- Lightweight – Chip PC's firmware size is less than 18MB. It is easy to deploy over any type of network connection while assuring a fast and more stable upgrade process.
- Modular – Operating System Hotfixes and Software add-ons (also known as Plug-ins) can be installed independently on the Thin-Client's firmware. It is possible to upgrade specific client software, such as the ICA / RDP client, without upgrading the entire Operating System. Thus saving network bandwidth, and allowing customers to install only add-ons required by them.
- Stable & Secure –Small-sized operating systems have less code and are therefore easier to debug and secure. In addition, all Chip PC firmware modules are digitally-signed to prevent malicious code and virus execution.
- Remotely Managed – Built-in Xcalibur Global Agent makes the firmware fully managed from remote. Administrators can configure single or multiple devices using Xcalibur Policies. Install upgrades, hotfixes and plug-ins. Create and modify ICA / RDP and Other terminal server connection settings. Enable / Disable hardware peripherals…and more.

Management Software - Xcalibur Global

General Features

- Use standard Microsoft Management Console for Thin-Client management
- Combines both Logical and Physical management models that map Thin-Clients into the logical Active Directory tree while considering the company's physical network layout.
- Monitor Thin-Client device and User activities in real-time
- Scalable, fault tolerant and load balanced management system

Security

- Encryption – All communication between the Thin-Client and the management server is encrypted using Secure Socket Layer (SSL)
- Port numbers - Change the port number used for communication between client and server
- Device Authentication – Require Active Directory credentials when joining a Thin-Client to the system and block unauthorized Thin-Client devices.
- User Authentication – Require Active Directory credentials or smart card when logging on to a Thin-Client.
- Certificates – Remotely "Push" certificates to Thin-Clients

Delegate administrative permissions

- Leverage Active Directory permissions – Use already existing Active Directory permissions to provide management rights for Xcalibur Global.
- Delegate administrative rights at any level – Provide administrators or users with permissions to specific levels of the organization.
- Assign view only permissions – allow administrator / user to view information needed without the ability to change settings.

System Infrastructure

- Scalable – Add Front End servers to increase the number of supported clients
- Redundant - Use multiple Front End servers to backup each other
- Load balanced – Use multiple Front End servers to balance client loads
- Bandwidth – Define bandwidth rules to limit network utilization of remote sites.

Thin-Client Administration

Administrative Tools

- Policy based management: Map Thin-Clients to the Active Directory and apply Xcalibur Policies to them
- Location based management: Map Thin-Clients to Sites and IP Scopes and apply location–based settings to them
- Control Thin-Client firmware remotely – Install / Uninstall firmware components to a single device or a group of devices
- Control Thin-Client peripherals remotely: Enable / Disable connections to USB / LPT / COM Ports
- Configure terminal server connections remotely: Define parameters for RDP, ICA or other connection.
- Lockdown & secure the Thin-Client remotely: Secure Thin-Clients within the environment by configuring lockdown settings for the device.
- Thin-Client Discovery: Discover newly added Thin-Clients by DHCP / DNS / SNMP / Xcalibur Policy

Logging, Monitoring & Real Time Device Info

- Shadow the Thin-Client from the management console: Provide remote support and or monitoring abilities for Thin-Clients
- Thin-Client's status: Online view of device status connected / disconnected / policy received etc'.
- General Device Info: View General Device Information such as Name, MAC / IP address, HW / SW platform, Hotfixes received etc'
- Device Authentication status: View the status of the device whether it's been Authorized or not, view all Blocked devices.
- Authenticated User Info: View information regarding an authenticated user such as User Name, Logon time etc'.
- Deployment: Online real-time view of the progress of software while being deployed.
- Upgrade: Online real-time view of the progress of upgrades while being deployed.
- History Logs: View history logs for upgrade deployment, software deployment as well as device & user authentication history log.

Upgrades & Software Deployment

- Centralization: Manage software deployment to Thin-Clients from one administration point
- Atomization: Automate software deployment by creating software installation policies and apply them to Thin-Clients at any Active Directory level
- Upgrade: Thin-Client firmware can be upgraded remotely
- Hotfixes: Install Operating System Hotfixes remotely
- Plug-Ins: Install and configure software add-on (Plug-ins) remotely
- Deploy by Time: Create Date & Time software deployment rules and apply them on Site and IP Scope locations
- Bandwidth: Create bandwidth limitation rules and apply them on Site and IP Scope locations
- Recovery: Corrupted Thin-Client firmware can be recovered remotely through PXE

Features and Strength

About this section:

This section summarizes the key features of Chip PC software products.

Device Image 6.5.x

The following document is a listing of all the features and capabilities available on Chip PC Thin-Client devices.

Index	
(**)	**This feature is unique to Chip PC products**
Local	Configurable locally on the Device
Remote	Configured remotely through Xcalibur Global

General Information	
Functions	**Chip PC Support**
Firmware Image version	6.5.x
Windows CE version	4.20
Plug-Ins	All compatible plugins for Firmware 6.5.x

Desktop Interface							
Functions	**Chip PC Support**					**Local**	**Remote**
Customize the Desktop interface for Devices	Per device (**)	Per group of devices (**)				√	√
Customize the Desktop interface for Users	Per user (**)	Per group of users (**)				√	√
Replace the Desktop background picture	Yes					√	√
Replace the Splash screen picture	Yes					√	√
Multi lingual interface	English	German	French			√	√
Multi language keyboard support	Yes					√	√
Launch in kiosk mode without user intervention	Yes					√	√
Control over Taskbar area	Yes					√	√
Control over system tray area	Yes					√	√
Available system tray Icons (**)	LAN	Wireless LAN	External Storage	Remote Network Connection		√	√
	VNC	Caps Lock	Language	Time	Printer		
Task manager	Yes					√	√

Firmware Options						
Remote Management						
Functions	Chip PC Support				Local	Remote
Manage device settings through Xcalibur Global policy	Per Device (**)	Per group of devices (**)	Per user (**)	Per group of users (**)	√	√
Duplicate device settings through Xcalibur Global	Per Device		Per group of devices		√	√
Shadow the device remotely through VNC	Notify User of Shadowing	Request User permission for shadowing	Performance counters (**)		√	√
Security						
Functions	Chip PC Support				Local	Remote
Password Protect the Device settings WBT	Per Device	Per Group of Devices	Per user (**)	Per group of users (**)	√	√
Customize the WBT interface for Devices	Per device (**)		Per Group of devices (**)		√	√
Customizable the WBT interface for Users	Per user (**)		Per group of users (**)		√	√
Disable standby mode on device (device always ON)	Yes				√	√
Enable / Disable attached Local Storage	Flash device	Floppy device	CD ROM Devices		√	√
Enable / Disable Local Printing peripherals	USB	LPT	COM		√	√
Authentication						
Functions	Chip PC Support				Local	Remote
Prompt for domain user credentials	Yes				√	√
Password protected screen saver	Yes				√	√
Prompt for smartcard	Yes				√	√
Smart card authentication options	Standard PC/SC	Through Xcalibur Global (**)	Local (**)		√	√
Lock device pending authentication	Yes				√	√
Printers						
Functions	Chip PC Support				Local	Remote
Send print jobs to	USB	LPT	COM	LPR	SMB	√	√
Print test page directly from the device to locally attached Printer	USB	LPT	COM			√	√
Print test page directly from the device to a remote network printer	LPR	SMB					

ICA Plug-In and Connections

The following document is a listing of all the features and capabilities Chip PC offers through the ICA plug-In.

Index	
(**)	**This feature is unique to Chip PC products**
Local	Configurable locally on the Device
Remote	Configured remotely through Xcalibur Global

General Information				
Functions	**Chip PC Support**		**Local**	**Remote**
ICA Version	9.18		N/A	N/A
ICA Client installable as Plug-In Remotely	External USB Storage	Shared folder / FTP	√	√

Visibility			
Functions	**Chip PC Support**	**Local**	**Remote**
High screen resolution	Yes – Hardware dependent	√	√
Seamless window	Yes	√	√
Dual Screen support	Yes – Hardware dependent	√	√
Create shortcut on desktop	Yes	√	√
Change local ICA connection icons	Yes (**)	√	√

Session Configurations						
Common Session Features						
Functions	**Chip PC Support**				**Local**	**Remote**
Connection Types	ICA	PNA	Published Apps	VDI	√	√
ICA connection assignment - Device	Per device		Per group of devices		√	√
ICA connection assignment - User	Per user (**)		Per group of users (**)		√	√
Control Global ICA settings such as HotKeys / PNA / Server location etc'	Yes				√	√
Create "Autostart" shortcut on desktop	Yes				√	√
Automatic logon	Yes				√	√
Launch in kiosk mode without user intervention	Yes				√	√
Peripherals that can be mapped into session						
Functions	**Chip PC Support**				**Local**	**Remote**
PC/SC Smart card	Yes				√	√
COM ports	Yes				√	√
Attach local storage	Flash Devices	Floppy Devices	CD ROM Devices		√	√
Printing	USB	LPT	COM	LPR / SMB	√	√
Audio IN / OUT	Headphones	Microphone			√	√

PNA (Program Neighborhood Agent) Connection Settings					
Functions	**Chip PC Support**			**Local**	**Remote**
ICA Program Neighborhood Agent	Yes			√	√
Session Sharing with Published application	Yes			√	√
Display PNA application Shortcut	Desktop	Start menu	Connection Manager	√	√
Web Browser Connection Settings					
Functions	**Chip PC Support**			**Local**	**Remote**
Browse Web Interface	Yes			√	√
Browse Web Interface via CSG (Citrix Secure Gateway)	Yes			√	√
Security					
Functions	**Chip PC Support**			**Local**	**Remote**
Logon to session with PC / SC smart card	Yes			√	√
Pass through Logged on user credentials	Yes (**)			√	√
Pass through Logged on user credentials into PNA	Yes (**)			√	√
Pass through authentication rules	Yes (**)			√	√
Enable Proxy	Yes			√	√
Certificate import option	Yes			√	√
Session Optimization					
Functions	**Chip PC Support**			**Local**	**Remote**
Compress Data stream support	Yes			√	√
Enable cache	RAM based (**)	Flash based		√	√
Enable session reliability	Yes			√	√
Speed Screen multimedia acceleration	Yes			√	√
Speed Screen Browser acceleration	Yes			√	√
Enable Mouse Timer	Yes			√	√
Enable Keyboard Timer	Yes			√	√
GA use alternate 16 bit mode	Yes			√	√
Multimedia acceleration	Yes			√	√
Enable clipboard	Yes			√	√
Full screen window behind Taskbar	Yes			√	√
Transport Reconnect enabled	Yes			√	√
Transport Silent Disconnect	Yes			√	√
Maximize applications in full screen	Yes			√	√

RDP Plug-In and Connections

The following document is a listing of all the features and capabilities Chip PC offers through the RDP plug-In.

Index	
(**)	**This feature is unique to Chip PC products**
Local	Configurable locally on the Device
Remote	Configured remotely through Xcalibur Global

General Information					
Functions	**Chip PC Support**			**Local**	**Remote**
RDP Version	5.2			N/A	N/A
RDP Client installable as Plug-In	Remotely	External USB Storage	Shared folder / FTP	√	√

Visibility			
Functions	**Chip PC Support**	**Local**	**Remote**
High screen resolution	Yes – Hardware Dependant	√	√
RDP seamless window	Yes (**)	√	√
Dual screen support	Yes	√	√
Create shortcut on Desktop	Yes	√	√
Change local RDP connection icons	Yes (**)	√	√
ActiveX support	Yes	√	√

Session Configurations				
Common Session Features				
Functions	**Chip PC Support**		**Local**	**Remote**
RDP connection assignment – Device	Per Device	Per Group of Devices	√	√
RDP connection assignment – User	Per User (**)	Per Group of Users (**)	√	√
Create “Autostart” shortcut on Desktop	Yes		√	√
Automatic logon	Yes		√	√
Launch in kiosk mode without user intervention	Yes		√	√
VDI connection	Yes		√	√

Peripherals that can be mapped into session								
Functions	**Chip PC Support**						**Local**	**Remote**
PC/SC Smart card	Yes						√	√
COM Ports	Yes						√	√
Attach Local Storage	Flash Devices		Floppy Devices		CD ROM Devices		√	√
Printing USB	LPT	COM		LPR		SMB	√	√
Audio IN (RDP has output limitation)	Headphones						√	√
Security								
Functions	**Chip PC Support**						**Local**	**Remote**
Logon to session with PC/SC smart card	Yes						√	√
Pass through Logged on user credentials	Yes (**)						√	√
Pass through authentication rules	Yes (**)						√	√
Session Optimization								
Functions	**Chip PC Support**						**Local**	**Remote**
Control RDP Session Compression	Yes						√	√
Control Bitmap cache size	Yes						√	√
Control Bitmap persist cache size	Yes						√	√
Reconnect if connection is dropped	Yes						√	√
Minimize RDP window when idle for bandwidth reduction	Yes (**)						√	√
Themes	Yes						√	√
Show content of window while dragging	Yes						√	√

Internet Explorer Plug-In and Connections

The following document is a listing of all the features and capabilities Chip PC offers through the Internet Explorer plug-In.

Index	
(**)	**This feature is unique to Chip PC products**
Local	Configurable locally on the Device
Remote	Configured remotely through Xcalibur Global

General Information					
Functions	**Chip PC Support**			**Local**	**Remote**
Internet Explorer Version (for win CE)	6.0			N/A	N/A
IE Client installable as Plug-In	Remotely	External USB Storage	Shared folder / FTP	√	√

Visibility						
Functions	**Chip PC Support**				**Local**	**Remote**
Resizable window size – seamless window	Yes				√	√
Menus and Bars customization	Hide menu bar	Hide tool bar	Hide address bar	Hide status bar	√	√
Disable context menu (right click)	Yes				√	√
Change connection icons	Yes (**)				√	√

Session Configurations				
Common Session Features				
Functions	**Chip PC Support**		**Local**	**Remote**
IE connection assignment – Device	Per Device	Per Group of Devices	√	√
IE connection assignment – User	Per User (**)	Per Group of Users (**)	√	√
Create “Autostart” shortcut on Desktop	Yes		√	√
URL settings	Open each URL In different window	Open each URL In the same window	√	√
Don’t display images in pages	Yes		√	√
Launch in Kiosk mode with no user intervention	Yes		√	√
Autostart IE connections	Yes		√	√

Security					
Functions	**Chip PC Support**			**Local**	**Remote**
Block connection to FTP sites	Yes			√	√
Block Cookies	Yes			√	√
Prohibit all downloads	Yes			√	√
Allow only connection-downloads	Yes (**)			√	√
Pass through logged-on user credentials into IE sessions	Yes (**)			√	√
Don't warn when switching between secure and insecure areas	Yes			√	√
Support for security zones	Trusted sites	Local intranet	Internet Restricted site	√	√
Configure proxy settings	Use Proxy server	Bypass Proxy for local address		√	√
Session Optimization					
Functions	**Chip PC Support**			**Local**	**Remote**
Cookies disk caching – size control	Yes			√	√
Cache size control	Yes (**)			√	√
Pop-up IE windows support	Yes			√	√
Prohibit use of	TLS 1.0	SSL 2.0	SSL 3.0	√	√

Terminal Emulation Plug-In and Connections

The following document is a listing of all the features and capabilities Chip PC offers through the Terminal Emulation plug-In.

Index	
(**)	**This feature is unique to Chip PC products**
Local	Configurable locally on the Device
Remote	Configured remotely through Xcalibur Global

General Information					
Functions	**Chip PC Support**			**Local**	**Remote**
Terminal Emulation	5.01			N/A	N/A
Terminal Emulation Installable as a Plug-In	Remotely	Shared folder / FTP	External Storage	√	√

Visibility			
Functions	**Chip PC Support**	**Local**	**Remote**
Terminal Emulation Seamless window	Yes	√	√
Change Terminal Emulation connection icons	Yes	√	√
Create shortcut on Desktop for Terminal Emulation connections	Yes	√	√
Launch in kiosk mode without user intervention	Yes	√	√
Create “Autostart” shortcut	Yes	√	√

Connection Settings								
Functions	**Chip PC Support**						**Local**	**Remote**
Support for most common Terminal Emulation Types	ADDS	AIXT	Ansi	AT	ATT	HZ	√	√
	IBM	Sco Console	TVi	VT	WY	WYSE		
Terminal Emulation Macros	Yes						√	√
Terminal Emulation connection assignment for Devices	Per device			Per group of devices			√	√
Terminal Emulation connection assignment for Users	Per user (**)			Per group of users (**)			√	√
Import / Export Pericom connection file	Yes						√	√
Connection Type	TCP / IP		Modem		Serial		√	√
International Settings	Yes						√	√
Configure Operating Language	Yes						√	√

VNC Plug-In and Connections

The following document is a listing of all the features and capabilities Chip PC offers through the VNC plug-In.

Index	
(**)	**This feature is unique to Chip PC products**
Local	Configurable locally on the Device
Remote	Configured remotely through Xcalibur Global

General Information					
Functions	**Chip PC Support**			**Local**	**Remote**
VNC Version	4.20			N/A	N/A
VNC Installed as plugin	Remotely	Shared Folder / FTP	External Storage	√	√

Visibility			
Functions	**Chip PC Support**	**Local**	**Remote**
Limit the amount of colors in VNC connections	Yes	N/A	√
Shadow a device that has multiple displays	Yes	N/A	√
Show VNC icon in the system tray	Yes	√	√

Connection Settings				
Common Session Features				
Functions	**Chip PC Support**		**Local**	**Remote**
VNC Plug-In settings	Per Device	Per Group of Devices	√	√
Launch viewer from management console	Yes		N/A	√
Retrieve performance information from a device through shadowing – Get CPU / Network / Memory Data	Yes (**)– this feature is similar to Task Manager on a PC.		N/A	√
Privacy Regulation				
Functions	**Chip PC Support**		**Local**	**Remote**
Prompt and notify users prior to shadowing	Per User (**)	Per Group of Users (**)	√	√
Request user permission for shadowing	Per User (**)	Per Group of Users (**)	√	√
Security				
Functions	**Chip PC Support**		**Local**	**Remote**
Set VNC Password	Yes		√	√

Success Stories

About this section:

Chip PC products answer a large variety of customer needs. This section contains a collection of real-customer environments where Chip PC solutions where implemented.

Story 1 – Manufacturing Industry

Company Details

One of Europe's largest manufacturing corporation that has more than 50 sales and manufacturing facilities through out Europe.

Goal

Reduce TCO by decreasing the number of help desk employees as part of an overall consolidation process in the organization.

Chosen Solution

The company has taken a strategic decision to limit the number of fat clients in the organization to the minimum, and chosen Chip PC products as a complete Thin-Client solution.

Implementation

Xcalibur Global was installed and configured according to the organizational needs and Chip PC Thin-Clients were deployed throughout the company. Once connected to the network, the devices discovered Xcalibur using DNS, received management policies and were automatically configured. Xcalibur Policies were set to apply at different hours to different sites in order to accommodate different working hours.

At the first phase of the project, approximately 1,000 Thin-Client devices were deployed over a period of one day.

Working Scenario

Once powering-on a Thin-Client, its boot screen, desktop picture and screen saver picture where changed to reflect the company's logo. In order to begin, users are requested to provide their Domain Credentials. After successfully authenticating, Xcalibur User Level policies configure the device according to the settings specified for the logged-on user. Single sign-on is accomplished by passing-through the logged-on user credentials to a Citrix published desktop.

Outcome

Since deploying the Chip PC solution the number of helpdesk support calls has decreased dramatically. All support calls are managed through a single helpdesk panel situated in the main data center in central Europe.

The following table summarizes the main customer needs and corresponding solutions provided by Chip PC.

Customer Need	Chip PC Solutions
Reflect the company's logo in the Thin-Client's splash screen and desktop background picture	Use the Customize System Screens plug-in to deploy pictures to devices via Xcalibur Policy
Secure the Thin-Client environment by preventing access of unauthorized users and change the device settings according to the user that logs-on to it	Use the Domain Authentication feature and apply Xcalibur User Level policies
Lock the Thin-Client after 10 minutes of idle time and prompt for Domain Credentials when unlocking it	Use Xcalibur Policy to enable the Password Protected Screen Saver option together with the Domain Authentication feature
Allow only a specific type of USB devices to be connected to the Thin-Client	Configure the USB Peripheral port settings using Xcalibur Policy
Lock-down the device by removing all Start Menu and Desktop icons from the Thin-Client's interface	Customize the Thin-Client's shell interface using Xcalibur Policy
Prevent Thin-Client management actions from interfering with user's work	Use the Policy Updater to apply Xcalibur Device Level policies only during off-work hours on per-site bases
Helpdesk employees should be able to shadow Thin-Clients from remote	Use Xcalibur Console to shadow Thin-Client via VNC
Notify users prior to shadowing them	Use the Advanced VNC feature, configured through Xcalibur Policy, to prompt users when there devices are being shadowed.

Story 2 – Retail

Company Details

The second largest cellular company in a country, having more than 1.5 million customers and hundreds of sale-points spread throughout the state.

Goals

- Deploy 2 Thin-Clients and a Printer to every sale-point and connect them to the Citrix Farm over ADSL lines
- Migrate the company's Call Center to Thin-Clients (500 Seats)
- Migrate the company's Training Academy to Thin-Clients (300 Seats)
- Deliver different types of users their specific set of applications running on a Redundant Citrix Farm

Chosen Solution

Deploy more than 1200 Chip PC Thin-Clients and control them through the Xcalibur Global management software

Implementation

Xcalibur Global was installed and configured according to the organizational needs. For bandwidth optimization, the company's complex network infrastructure was mapped into the Xcalibur Farm. Different Xcalibur Policies were created for each environment (Call Center / Sale Point / Academy).

Call Center and Academy devices were set to discover Xcalibur via DHCP, while sale-point devices discovered Xcalibur via DNS. Once connecting a device to the network it automatically connected to Xcalibur and was assigned bandwidth and policies based on its source IP Address.

Working Scenario

- Sale-point employees (and third parties) get access to corporate applications that run seamlessly on the Thin-Client.
- Call Center users are requested to provide their Domain Credentials prior to logging-on to the Thin-Client device. Xcalibur Policies configure the Citrix PNAgent settings on the Thin-Client to pass-though the logged-on user credentials and connect to CRM, SAP and Office applications.
- Students in the Training Academy are assigned different connections at each classroom.
- Helpdesk users are delegated with basic Xcalibur administration permissions that allow them to support users from remote using Xcalibur Console, without overriding policies and settings defined by higher level Administrators.

Outcome

The complexity of the customer's environment and needs challenged the use of Thin-Clients.

Chip PC standard solution provided a comprehensive answer to all customer requests.

Today, the company benefits from the transition to Thin-Clients in both the financial aspect, thanks to the reduction of maintenance and support costs as well as from the Administrative aspect which is now consolidated through Xcalibur Global.

The following table summarizes the main customer needs and corresponding solutions provided by Chip PC.

Customer Need	Chip PC Solutions
Manage, upgrade and control Thin-Clients that are installed in remote sites without overloading the network.	Create Sites and IP Scopes, in the Xcalibur Farm, to represent remote branches and apply bandwidth rules to them.
Automatically configure newly joined Thin-Clients according to their physical location.	Use Device Authentication to map IP Scopes to Active Directory OUs and assign Xcalibur Policies to them.
Reflect the company's logo in the Thin-Client's splash screen and desktop background picture.	Use the Customize System Screens plug-in to deploy pictures to devices via Xcalibur Policy.
Secure the Thin-Client environment by preventing access of unauthorized users and change the device settings according to the user that logs-on to it.	Use the Domain Authentication feature and apply Xcalibur User Level policies.
Assign different connections to users that are working on the same device.	Use the Domain Authentication feature and distribute connections through Xcalibur User Level policies.
Lock the Thin-Client after 10 minutes of idle time and prompt for Domain Credentials when unlocking it.	Use Xcalibur Policy to enable the Password Protected Screen Saver option together with the Domain Authentication feature.
Thin-Clients situated in sale-points need to print to a network LPR Printer.	Configure the LPR Printer port settings using Xcalibur Policy.
Lock-down the device by removing all Start Menu and Desktop icons from the Thin-Client's interface .	Customize the Thin-Client's shell interface using Xcalibur Policy.
Prevent Thin-Client management actions from interfering with user's work.	Use the Policy Updater to apply Xcalibur Device Level policies only during off-work hours on per-site bases.
Helpdesk employees should be able to perform basic Thin-Client administrative tasks from remote	Delegate only the necessary administration rights through Active Directory and Xcalibur Site settings

Index

This a general index of all terminology and buzz words appearing through out the Information Sheets.

Concept	Definition
Automatic logon	Enables the user to connect to a terminal server session without having to supply credentials (user name and password).
Autostart Connection	Starts a connection to a terminal server session automatically once the device is powered on – without user intervention.
Background picture	A picture that is presented on the device desktop.
Cache	A mechanism for improving the time it takes to read data.
Citrix Secure Gateway (CSG)	A web portal from which users connect to their terminal server applications in a secured way.
Compress Data	Shrink data as much as possible in order to reduce bandwidth requirements on the expense of CPU utilization.
Dual screen	The ability to connect 2 screens to the same device at one time. Extends the working area of a user by providing more space to open applications
Domain user credentials	User name, password and domain name of a user.
Firmware	A modified Operating System version that is tailored by a software vendor
Firmware version	The version of firmware as defined by the vendor. Current Chip PC firmware version is: 6.5.x
Firmware upgrade	The process of installing a newer firmware version on the thin client
High Screen Resolution	Screen area that is larger than 1024 x 768 for example: 1280 x 1024
Hotfixes	A software module that adds functionality or resolves bugs in an existing firmware
ICA	The protocol that is used when connecting to a Citrix terminal server.
Device Image	An alternate term to: Firmware
Image Upgrade	An alternate term to: Firmware upgrade
Kiosk Mode	Kiosk Mode is a locked down thin client that is configured to function flawlessly while preventing users from accessing system functions.
Linux embedded	Unlike the free, open source, Linux that runs on PC's and Servers, Linux embedded is a proprietary operating system that runs on thin client devices. Linux embedded customers do NOT have access to the operating system source code or kernel.
Storage – Local	The internal (M-systems) Disk-on-Chip storage that is situated on the thin client's motherboard. This is where the device firmware and plug-ins are stored at.
Storage – USB External	Represents storage that can be connected externally to the device's USB Port. Such as: USB Disk-on-Key, USB CD-ROM...etc.
Pass through Authentication	Pass-through Authentication allows transparent forwarding of user credentials to client applications. Pass-through Authentication prevents the need for the user to re-enter his credentials therefore providing single-sign-on.
Pass through Authentication Rules	A set of scripts that allow manipulating the user credentials (User name / Password / Domain name, prior to passing them through to the client application. For example, you can create a pass-though authentication rule that cuts the first part of the original domain name prior to passing it to the PNAgent client. This way, when user alex@first.second.com logs-on to a device, the Pass-through Authentication rule transparently modifies the logon name to alex@second.com and then passes it to the PNAgent client.
Peripherals	Attachable devices such as USB storage, Printing devices, Barcode readers etc'.

Plug-Ins	Plug-ins are compact client-side applications that can be installed on Chip PC Thin-Client devices. The Plug-in technology makes keeping client-side software up to date possible without the need to fully upgrade the client's firmware. This way, for example, the ICA client application can be updated once a newer version is released, tested and found essential for the project needs. Due to the small file size factor, the plug-in installation process is fast, less bandwidth consuming and considered highly reliable in terms of the client's operating system stability. In some cases, plug-in updates require the latest hotfix installation.
PNA	Citrix Program Neighborhood Agent (PNAgent) allows users to connect without using a Web Browser to a server running the Citrix Web Interface and access all published applications.
Proxy	A proxy server is a computer that offers network service allowing clients to make indirect network connections to other network services.
Published applications	An application that is installed on a Terminal Server and can be accessed directly through a session
PXE recovery	The process of installing firmware on a thin client using PXE protocol
RDP	The protocol that is used when connecting to a Microsoft Windows or Citrix terminal server.
Restore to Factory Defaults	Restore to Factory Defaults reverts a device to its initial configurations by clearing all settings.
Safe Mode	Safe Mode is a special boot mode. While the thin client enters the safe mode, it will have reduced functionality, but will be capable to connect to the network and be upgraded.
Seamless window	A seamless application session is displayed on the client device in such a manner so as to mimic or match that of an application that is launched locally. For example: When launching Internet Explorer seamlessly from a Microsoft Terminal server and also locally, both windows basically looks and behaves the same.
Session	A session refers to a connection that is established from a client to a terminal server. Within a session, applications that are installed on the server appear to be running on the client
Session Sharing	Session sharing occurs when opening a second session from a thin client that is already connected to a terminal server. The server considers the second session as an extension of the first one and therefore regards both sessions as one. Thus only charging one terminal server license from the client instead of two.
Shadow	(Look up VNC definition)
Splash screen picture	A picture that appears on the thin client's screen during system boot. The picture can be replaced to reflect the company logo.
Software Recovery	Software recovery is the process of upgrading a thin client's firmware that encountered an unexpected failure.
Terminal Emulation	A program that emulates a "dumb" video terminal. A terminal window allows the user access to text terminal and all its applications such as command-line interfaces and text user interface applications.
VNC	A third part software that allows viewing the screen of a remote computer and interacting with it's keyboard and mouse
WBT interface	Windows Based Terminal, this is the control panel interface through which all configurations can be done locally on the device.

Models Comparison

NG-6000 - Standard features, general purpose model with 3 USB ports.

NG-6050 - Based on the NG-6000 with serial and parallel ports for added compatibility.

NG-6052 - Based on the NG-6050, equipped with an integrated smart card for enhanced security.

NG-6400 - The advanced model with 3 USB ports. Enhanced performance and video capabilties.

NG-6450 - Based on the NG-6400 with serial and parallel ports for added compatibility.

NG-6452 - Based on the NG-6450, equipped with an integrated smart card for enhanced security.

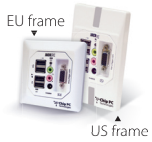
NG-6500 - The advanced model equipped with VGA and DVI-D video ports. This provides enhanced display capabilities, including dual screen support.

NG-6552 - Based on the NG-6500, equipped with an integrated smart card for enhanced security.

NG-6600 - This enhanced video memory model is equipped with double DVI-I video outputs. This provides enhanced display capabilities, including quad (4) and dual screen support.

NG-6460 - Based on the NG-6450 model, equipped with a Fiber Optic Network Interface to enable work in a security tight environment.

NG-6462 - Based on the NG-6460 model, equipped with an integrated smart card for enhanced security.



EFI-6700 - Standard model with infrastructure LAN integration capability. This model has generous number of USB ports for improved connectivity and offers True Color display support. Owns built-in Power-over-Ethernet capability in addition to external powering.

EFI-6800 - Advanced model with infrastructure LAN integration capability. Offers improved processing, memory and video support capability. Owns built-in Power-over-Ethernet capability in addition to external powering.

EFI-6900 - The advanced Jack PC model equipped with DVI-I video ports. This provides enhanced display capabilities, including dual screen support

Model Name	CPU	Equiv. x86	Flash	RAM	Separate Video Memory	Video Output	Multi Screen Support	Port Number and Type			Audio Support	Max Resolution (Single Screen Configuration)	Management Software
								Parallel	Serial	USB			
NG-6000	Alchemy/RMI Au 1550, 333 MHz RISC	800 MHz	32MB DOC	64 MB DDR	4 MB	VGA (15-DB)	N	N	N	3	N	1280x1024 pixels, 16 M (24 bit) colors (True Color)	Xcalibur Global
NG-6050								1	1	3	Y		
NG-6052								1	1	3			
NG-6400	Alchemy/RMI Au 1550, 500 MHz RISC	1.2 GHz	64MB DOC	128 MB DDR	8 MB			N	N	3		- 1280X1024 px, 16M (24bit) colors (True Color) - 1600X1200 px, 64K (16bit)	
NG-6450								1	1	3			
NG-6452								1	1	3			
NG-6500						DVI-D + VGA (15-DB)	**Dual Screen**	N	1	3		**Single screen options** - 1280X1024 px, 16M (24bit) colors (True Color) - 1600X1200 px, 64K (16bit) **Dual screen** Up to 1024X768 px, 64K (16bit) colors	
NG-6552								N	1	3			
NG-6600					16 MB	2 x DVI-I	**Dual Screen**	N	N	4		**Single screen options** 1600X1200 px, 16M (24bit) colors (True Color) **Dual screen** - 1600x1200 px, 64K (16bit) colors - 1280X1024 px, 16M (24bit) colors (True Color) **Quad screen** Up to 1024X768 px, 64K (16bit) colors	
							Quad (4) Screen	N	N	4			
NG-6460	Alchemy/RMI Au 1550, 500 MHz RISC	1.2 GHz	64MB DOC	128 MB DDR	8 MB	VGA (15-DB)	N	1	1	3	Y	- 1280X1024 px, 16M (24bit) colors (True Color) - 1600X1200 px, 64K (16bit)	Xcalibur Global
NG-6462													
EFI-6700	Alchemy/RMI Au 1550, 333 MHz RISC	800 MHz	32MB DOC	64 MB DDR	4 MB	VGA (15-DB)	N	N	N	4	Y	1280x1024 pixels, 16 M (24 bit) colors (True Color)	Xcalibur Global
EFI-6800	Alchemy/RMI Au 1550, 500 MHz RISC	1.2 GHz	64MB DOC	128 MB DDR	8 MB							- 1280X1024 px, 16M (24bit) colors (True Color) - 1600X1200 px, 64K (16bit)	
EFI-6900						DVI-I	**Dual Screen**					**Single screen options** - 1280X1024 px, 16M (24bit) colors (True Color) - 1600X1200 px, 64K (16bit) **Dual screen** Up to 1024X768 px, 64K (16bit) colors	

Models Brief

NG-6000
Whenever a working environment requires an economical, connective, and plug-in savvy unit, the NG-6000 is your prime choice.
The NG-6000 seamlessly accommodates to a variety of server platforms with sufficient power behind its sessions to run most applications.
With its refined lines, compact size, the NG-6000 snuggly blends into any working environment. Armed with Chip PC innovatively designed metal grip (optional), the NG-6000 easily anchors to any surface for tighter security.

EX- NG-6050
Carefully designed to handle multi-sessions, the NG-6050 is at ease with multi-server platforms, supports audio, and cost-effectively priced. This compact, smart looking, highly connective model, offers a good return on investment for any plug-in-savvy environment. As with other members of the NG family, the NG-6050 complements Chip PC management software to form a flexible and tightly secured network. Yet another security dimension is added with Chip PC innovatively designed metal grip (optional).

NG-6052

The NG-6052 is specially designed with highly connective, personal-security demanding, environment in mind. With its array of ports and improved means of authentication (PKI compatible) this clever model successfully combines between connectivity and tight personal security. Combined with Chip PC sophisticated, flexible, and secure, management software, this compact model powers a company network to become security tailored down to the most particular user!

NG-6400
Aimed at enhanced display applications, the NG-6400 answers the challenge without stopping to be cost-effective, connective, and plug-in rich. It delivers all the above and remains attuned to different server platforms without loosing its power to run most applications.
Needles to say, the NG-6400 retains its family characteristics of nifty, and compact design, and easily blends into an enterprise working environment.

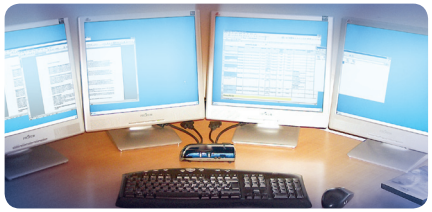
NG-6450
Alternating between enhanced and true color display options, the NG-6450 puts in more value for your money in the form of richer connectivity with its additional serial and parallel ports. This little unit retains the NG family virtues of adhering to different server platforms, plug-in savviness, smooth design, and easy desktop attachment. Together with Chip PC management software, this unit makes an excellent choice for any network requiring high connectivity.

NG-6452
Personal security without compromising enhanced connectivity and rich display options, wrapped up in a compactly designed shell– that is what the NG-6452 is all about!
This unit offers the combination between the power to smoothly run most applications, PKI-compatible means of authentication, and flexibility. The NG-6452 successfully complements any enterprise network seeking security and powerful, versatile, features.

NG-6500
Offering a choice of versatile displays, rich connectivity, and audio support- this is the affordable NG-6500!
With its DVI-D and analog video outputs the NG-6500 is built to provide dual screen display and answer picky display requirements.
In addition, this compact, highly attachable unit, demonstrates the usual NG family features as power and smooth design.

NG-6552
Highly accessible with its variety of ports, audio support, and dual, high-resolution screen display, the NG-6552 adds yet another dimension of security with its PKI-compatible means of authentication. The NG-6552, naturally, retains its family traits of smooth and compact design, while remaining powerful and easily attached to varied surfaces.

NG-6600
This extremely accessible unit has been thoroughly designed to answer stringent applications demanding high quality, multi-display. With its ability to support up to quad display with non-compromising resolution, the NG-6600 has even more virtues to offer as power, compact build, and smooth, practical, design.



NG-6460
The NG-6460 offers a rewarding combination between high connectivity, single analog video output, and uncompromising corporate data security. The NG-6460 with its Fiber Optic Network Interface is the prime choice for tight security environment. It presents a prudent way of teaming together power, and security, all wrapped up in a compact, smoothly designed, unit.

NG-6462
This unit is unique in its emphasis on data security, both on personal and corporate levels. The NG-6462 with its PKI-compatible personal authentication method complements its data security on corporate level with its Fiber Optic Network Interface. Arrays of ports with smooth and compact design add up to exceptional connectivity and comfort operation. NG-6462 truly is the most effective solution for corporate secured work flow.

EFI-6700
Perfectly blending into the wall mains, this amazing, revolutionary unit, stuns with its novel features. This Power-over-Ethernet, LAN-integrated unit, with its multi-USB ports, and True color display, sets new standards for the PC world. Safely tucked in the wall, the EFI-6700 becomes the bridge between Smart Building and PC building technologies and sets an overwhelming challenge for any PC.

EFI-6800
From its wall niche, this super-compact unit, offers high connectivity, stronger processing power, and goes further with its enhanced display resolution. The EFI-6800 easily becomes part of any Smart Building integrating its Power-over-Ethernet, LAN-integration, into a high performance unit.

EFI-6900
With its wall residence, high connectivity, powerful processing ability, the EFI-6900 is a faithful member of the EFI product family. Yet, it is equipped with a single DVI-I video output supporting DVI-A/VGA and DVI-D allowing for dual screen support. EFI-6900 never compromises its Power-over-Ethernet, LAN-integration capabilities making it not only powerful, revolutionary model but also part and parcel of any Smart Building technology.

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