



## Digital Signage

### What is Digital Signage?

Digital Signage, also known as Dynamic Signage, is a way of getting information or adverts or a combination of both to a targeted audience. It is generally offered as a hardware/software solution that will stream media files to an LCD or TFT panel, and is the perfect solution for spending advertising rands and getting an immediate ROI. Our range of products offer a complete hardware and software (including server software and content management) as a one-stop shop for your Digital Signage needs.

It can be used in almost any location where there is a need for information and advertising. The products we supply are able to stream live media, so that information can be broadcast in real time. This is especially useful in getting the right message across to the right people at the right time.

Digital signs offer several advantages over paper signs. Digital signs can be updated remotely over a computer or wireless 3G network while paper signs require individual replacement and physical travel to sign sites by personnel. Digital signs can be animated and can deliver sound as well as visual content, making them stand out a lot more than a traditional paper sign.

Digital Signage solutions are the way forward. Contact us today to find out how they can bring you a return on your marketing rand.

### Market Segments

Digital signage networks are not only found in large public areas such as train stations, shopping malls and major retail stores, but also in convenience stores, post offices, fast food outlets, bars, hairdressers, pharmacies, betting shops, taxis, trains and buses. Pretty much anywhere that has a point of sale or where large amounts of potential clients converge is an ideal location for digital signage.

Content displayed on screens using a Our device can range from simple text and still images to full-motion video, with or without audio. Our products can be implemented to many different purposes.

*Information* – examples include flight information in airports and wait-times for the next train at railway and mass rapid transit stations

*Advertising Related to the Location to Uplift Sales* – examples include in-store promotions in a retail establishment

*Advertising by Third Parties* – examples include restaurant-based digital signage networks that sell advertising to local merchants/service providers and national advertisers to obtain an additional source of external revenue

*Enhanced Customer Experience* – examples include digital signage in restaurant waiting areas to reduce perceived wait-time as well as special promotions of the restaurant's special and recommended dishes

*Influencing Customer Behaviour* – examples include post office digital signage that directs patrons waiting in line to automated stamp machines and retail digital signage designed to direct customers to different areas of the store, increasing the time spent on the store premises

*Brand Building* – examples include stores where digital signage in video form is used as a part of the store décor to build a story around the brand

## Market Size

The digital media and digital signage market is the fastest growing advertising medium in the world today. This is primarily because it reaches the customer out of home and at the point of sale enabling advertisers to target their message more accurately and effectively. With the fragmentation of traditional TV advertising due to a proliferation of alternative communications mediums, advertisers are looking for the best way to reach potential customers.

Rapidly-dropping prices for large plasma and LCD screens and the wide availability of Internet connectivity have made an enormous contribution to the increasing popularity of digital signage implementation.

With a current market of over US\$800 million dollars digital signage has proven its effectiveness as a marketing channel. It is also one of the fastest growing marketing channels, with a projected market for digital signage worth US\$3.5 billion by year 2011. In 2005 alone, over 430,000 digital displays were sold, solely for the purpose of being integrated with digital signage devices. A recent report on digital signage sales shows that digital signage providers are selling anywhere from one to as many as 50 displays per site. They also reported an average sale of four digital displays per site. Some estimates state that the digital signage market will have a need for more than 900,000 displays by 2009.

Digital signage offers an excellent return on investment compared to traditional printed signs. These digital signs may be scrolling message boards, LCD or plasma display panels, electronic billboards, projection screens, which are controlled electronically, allowing individuals or groups to remotely change and control their content.

A study, which polled consumers, found that digital signage displays have a 47.7% effectiveness on brand awareness, increase the average purchase amount by 29.5%, create a 31.8% upswing in overall sales volumes, generate a 32.8% growth in repeat buyers and generate 32.8% more in-store traffic.

## The Neptune-Digital Products and Who are We?

We are leaders in Digital Signage technology. With the development of both hardware and software, we can offer a product that meets your requirements completely. A full range of products offers you an array of technology that is both as flexible and as advanced as you need.

We take pride in our products, as our complete range of Digital Signage devices has been designed with the requirements of today's market at the forefront of our mind, without losing focus on the direction the market will take tomorrow. And because of this, we are sure that you will find a product within the Our

portfolio that is exactly what you're looking for.

Multiple pictures on one screen, with dual scrolling text capabilities allows you to get several messages across at one time, and an array of file support gives you the flexibility you need. Whether you are looking for a basic unit with wireless capabilities or an advanced device for multiple screens and live digital video broadcast functionality, we have a solution to completely fit your requirements.

## **Advanced**

In a world that relies on getting more and more information, there is no better way of ensuring your message gets to the right people than a Digital Signage solution from Us. With all of the software features you need for today and tomorrow, and an array of hardware features, every single product from Us can be tailor-made around your requirements. All units can be upgraded either now or at a later date, so your hardware investment is fully protected.

Our entire range offers user-defined screen scenes, with multiple picture support, scrolling text, and a whole array of supported file formats that ensure the products are absolutely state-of-the-art. If you are looking to run adverts in MPEG4 format, with JPEG photos on the sides simultaneously, a digital signage solution from Us is perfect for you.

## **Professional**

We specialise in high quality units, with no compromise in quality. When you install one of our units in to your network, you get the complete package. Easy to configure and use Server software allows you schedule downloads and playlists when you want, to ensure your target audience receives the right message at the right time.

Content Management software is also included with every single device. If you need to connect to a touch screen, then we can offer a plug-in to support this as well. No matter what your application, we are your one-stop shop for the ultimate in professional Digital Signage solutions.

## **Upgradeable**

Fact is that times, and situations, change. So what happens when your requirements for Digital Signage change too? You don't want to spend thousands of dollars on installing Digital Signage when you will need to replace it within a year or two. Our range of products are equipped to grow as your requirements and demands grow. With dual internal USB ports, the entire series of products can be upgraded to support a combination of wireless network connectivity, Digital or Analogue TV, Bluetooth and GPS.

## **Flexible**

We understand the importance of flexibility, which is why our units can be installed just about anywhere. We offer power supplies for use in an indoor environment, as well as for use in transport, such as busses. Add a GPS for pin point accurate, real time information on where the vehicle is, and a wireless or bluetooth device to update media content wirelessly.

# Technology & Innovation

The products are characterized by a number of innovative features:

They are capable of streaming data to LCD displays remotely through the TCP/IP (Ethernet, WiFi) or GSM (GPRS/UMTS/EDGE) network. This feature allows the data on the remote displays to be changed indefinite number of times with minimum costs.

The events that control the system depend both on time and location, offering the possibility of adapting the displayed content on the basis of where and when the customer sees it.

Our product range offers vast opportunities to the field of digital signage. The software on the server is the heart of the our system, where all data is given the exact location to which it must be sent. Our system represents a centralized media, which is controlled from one location through the Server Software and can be managed from several remote locations through the Content Management Software. The products exploit the tremendous progress in communication technologies that are bringing higher speeds to wired and wireless connections, allowing fast content updates and data transfers to specific targets.

## Technological Advance

Until now, the digital signage market has been filled by three different types of vendor. At the very top of the scale you have a software-only solution that is high on performance and functionality, but also – in our opinion – very over-priced. We do not believe in charging extortionate amounts for licenses.

In the middle range of the sector you have Industrial PC (IPC) companies who take existing hardware and add half-baked software which does not completely meet the requirements of the market. The hardware is not developed around the needs of the market, rather instead just being taken from other applications to cut development costs.

And right down at the bottom you have vendors who will take a very cheap and limited performance chipset and add them to a standalone device. Because of the low performance and functionality, this invariably results in users ending up being frustrated because the units do not live up to expectations.

We are developing a range of Digital Signage products that will compete with all three of these market segments, without compromising in power, reliability and functionality. Our technological advantage stems from the use of a brand new chipset that was made specifically for this type of application, and we are the first major brand to take advantage of this ARM9 microprocessor.

Added to that, Linux-based firmware, developed in-house by our team of software engineers, gives our range added stability and a lower cost.

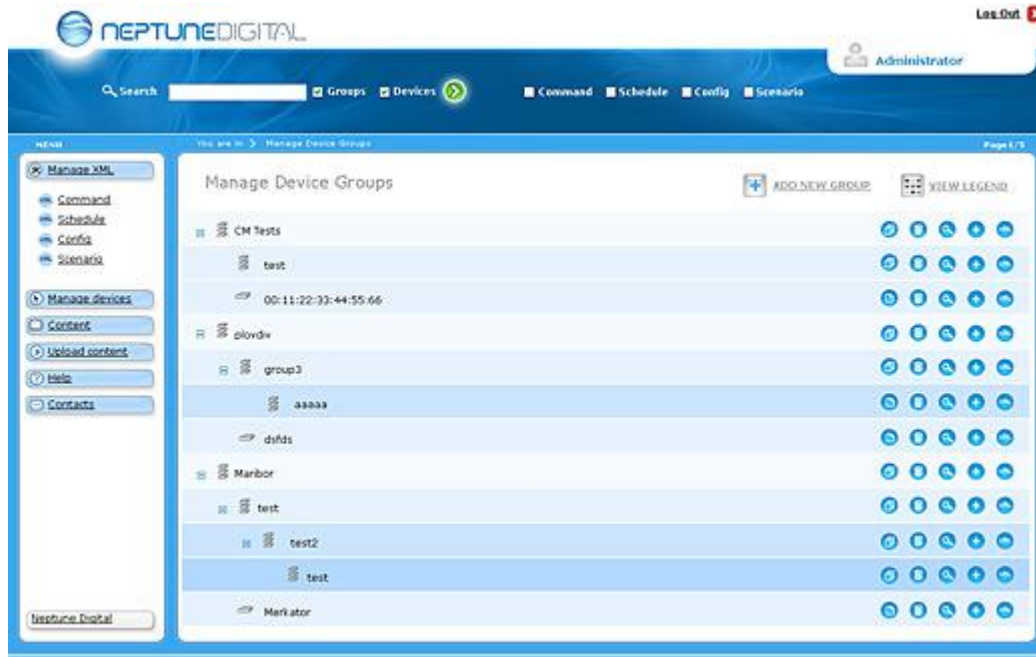
We are committed to the Digital Signage market, and will continually work to implement and integrate other technologies to keep one step ahead of our competitors. All components used in our devices have been hand picked and thoroughly tested to ensure the maximum in reliability and flexibility. And because we offer advanced software including, for example, H.264 video compression, we offer excellent opportunities for all of our customers and partners to offer top quality products at a very affordable price.

All of the above adds up to why our products are Out of this World.

# Server Software

The SERVER Software consists of a sophisticated computer program for configuring, managing, controlling and updating all Media Players included in the network. The SERVER Software interacts with all media players in the system and constantly monitors their proper function. The SERVER Software also includes a data scheduler, which is intended for promptly sending data to corresponding devices.

The SERVER first stores all content and scenarios, which are then either uploaded to the device or streamed directly.



## Functions

Windows XP based or Windows Server 2003 based

Supports different user levels from Administrator to users with special permissions

Three level Device Management

**CONFIGURE:** First Setup

**CONTROL:** Play Control, Power Control, Content Control

**UPDATE:** Software Update, Setup Update, Content Update

Group Management

Subgroup Management

# Content Management

The CONTENT MANAGEMENT Software represents the interface for clients accessing the Media Players included in the network. Before entering the online scheduler clients must first enter their username and password. After successfully accessing they have complete control over the contents running on the media players. The contents can be freely removed, replaced, uploaded or directly sent to the media players with just a click of a button.



The CONTENT MANAGEMENT Software reports exact locations and time at which the contents are being played.

## Functions

:: [Content Preparation - Drag & Drop](#)



Video



Crawl Text



Picture



RSS Feed



Scroll Text



Live text

:: [Create Playlist/Add playlist/Remove Playlist](#)

:: [Layout Selection](#)

:: [Scheduled Playback](#)

:: [Trigger Management](#)

# Functionality

## Supported A/V media

- .: Video: MPEG-2
- .: Video: H.264
- .: Audio: MP3



## Connectivity

- .: 3G/HSDPA (Later in 2008)
- .: Wireless LAN (IEEE 802.11g)
- .: LAN



802.11g  
Wireless  
Support



GPS  
Support



3G  
Module  
Support



Bluetooth  
Support (Later  
in 2008)

## Features

- .: Live streaming from Server
- .: RSS Feeds Support
- .: Live Text Support
- .: Log File (history tracking)
- .: Remote Management
- .: Scheduled download
- .: Scheduled playback

.:Triggers:



RS232



Ethernet



USB



GPS



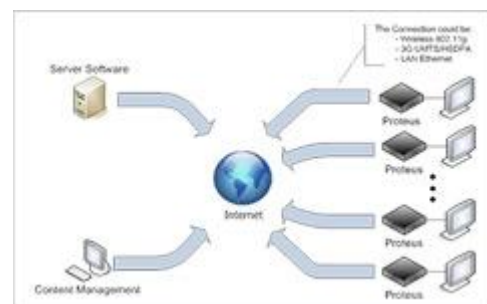
Touch Screen



Real Time Clock

## On-Line connection

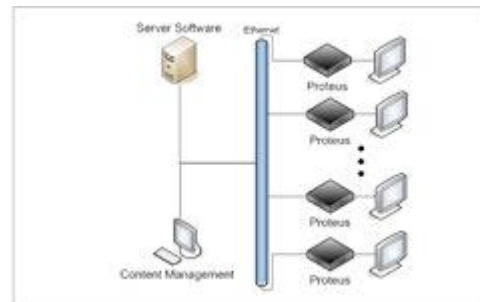
The On-line connection currently represents the most commonly used network topology in digital signage content distribution. In this case each screen is accompanied by a Media Player, which is connected to a centralised remote server either through Ethernet, WiFi or 3G/HSDPA (1.8Mbps upload 3.6Mbps Download) connection. On the server runs the Server Software, which constantly interacts with all Media Players included in the network. Several users can simultaneously access the network through the internet and their locally installed Content Management Software.



On-Line connection

## Corporate TV

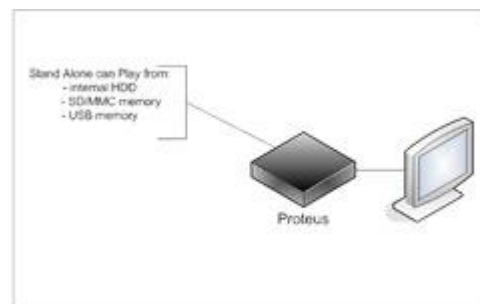
Using Digital Signage for corporate TV purposes in Supermarkets, Hardware stores, Airports, Movie Theaters and others is getting more and more popular each day. The corporate TV network is very similar to the on-line network. Each screen is accompanied by a Media Player, which is connected to a centralised Server through the Ethernet connection to have multiple channels. On the Server runs the Server Software, which constantly interacts with all Media Players included in the network. Users can access the network through the Content Management Software installed on the centralised Server.



Corporate TV

## Stand Alone

The Stand Alone functioning mode is mostly intended for the least demanding digital signage usage. It is most suitable for locations, where the digital signage content is not replaced or updated very often. In this case the screen is connected to the Media Player, which plays stored content either from internal HDD, SD/MMC memory card or USB memory stick.

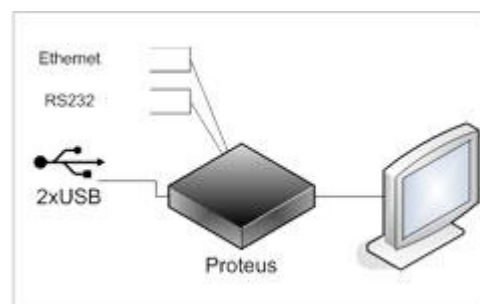


Stand Alone

## Triggers


The Media Player offers the possibility to start the triggers of the device through the RS 232, 2xUSB or Ethernet ports. The triggers can trigger a new scenario, schedule, change a display area, display some text, add some text add some pictures and others.


All the triggers have different priorities, in case that two or more triggers occur, the trigger with the highest priority will take place.




Triggers

## Trigger Modes

	RS 232
::	
Possibility to configure the device to retrieve and display the data in text format from the local host through RS 232 Example: cashier at the Supermarket, Slot machine (Jack Pot display), Vending machine	
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Possibility to use RS 232 for different devices Example: GPS, Touch Screen, Serial Controller	
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Possibility that the RS232 port can control outside equipment	
<b>Example:</b> LCD, Plasma Display, Video Projector	
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<b>All data packets are configured in the Content Management Software</b>	

	ETHERNET
::	
Possibility to configure the device to retrieve and display the data in text format from the local host or through Internet from the server	
<b>Example:</b> RSS Feeds, Special text Usage: Last news display	

	USB
::	
Possibility to have the data coming to USB for triggers Example: GPS, Touch Screen	
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Possibility to configure the USB port for communication	
<b>Example:</b> WiFi dongle, 3G/HSDPA dongle	
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Possibility to have the USB for video acquisition like DVB-T or ATSC	
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