



Viper – NTP Time Sync Setup



INTRODUCTION

Ensuring the correct date and time throughout your CCTV system is crucial for evidence gathering and recording. For a site with multiple recorders this may be challenging enough – let alone an IP system where most IP cameras have their own internal clock as well!

Vista's Viper and IP cameras support **Network Timesynchronisation Protocol (NTP)** to help achieve time sync throughout your CCTV system.

DETERMINE YOUR SINGLE TIME SOURCE

If your Vipers have Internet access this may be easy – simply click and use the “Public” default menu option on each Viper to sync it to the Vista Internet Time Source – then manually set each IP camera to point to its recording Viper as it's Time Source (topology below). You can also use your ISP's nearest NTP Time Source if preferred; such as ntp.virginmedia.com etc.

[

Single Time Source] <<< [Each Viper NVR\DVR] <<< [Each IP Camera]

An Internet NTP Single Time Source provides for maintenance-free time for your network – once setup.

Failing your Vipers having Internet access; consult with any local I.T. Department for an internal NTP Single Time Source they may have – obtain the IP address from them and confirm your Viper can PING this address! If even this is not available to you, and you have multiple Vipers, then choose one Viper to be the Single Time Source and point all the other Vipers to it. For this scenario you will of course need to manually change the time on the Single Time Source Viper if the CCTV system time starts to drift from Real Time!

CHOOSING A SINGLE TIME SOURCE TO USE		
Order of Ease (1 = easiest)	Internet Access?	Single Time Source
1.	Yes	“Public”
2.	Yes	Your ISP's NTP Time Source
3.	Yes\No	An IT Department NTP Time Source
4.	No	One of the Vipers

Procedure to Set-up NVRs and Cameras

Follow the below procedures. For a DVR, there is no need to set-up IP cameras – unless you have set your Viper DVR into hybrid mode!

DVR\NVR Time-Sync

- Login to the DVR\NVR locally via a monitor and mouse as Admin.
- Right-click the mouse in the **Live** view, select **[Setup]** from the menu.
- The **System** tab is open as default; click on **[Time / Date]** in the left menu (fig 1.)

- Make sure to tick **[Use]** against **Network Time Sync** (fig 1.)
- Click the down-arrow on **[Public]** and set as required (fig 1.);
 - **[Public]** - if Viper has Internet access and you want to use Viper Internet Time Source (easiest)
 - **[User Defined]** – if you want to set to your ISP's NTP Internet server, or internal IT Dept. NTP server.
- If **[User Defined]** selected; enter name or IP address of NTP source i.e. **ntp.virginmedia.com** or an internal IP address (fig 2.)
- Click and set your **Time Zone** and enable **DST** automatic daylight saving hours if in the UK
- Next click **[Sync. Now]** (fig 2.)

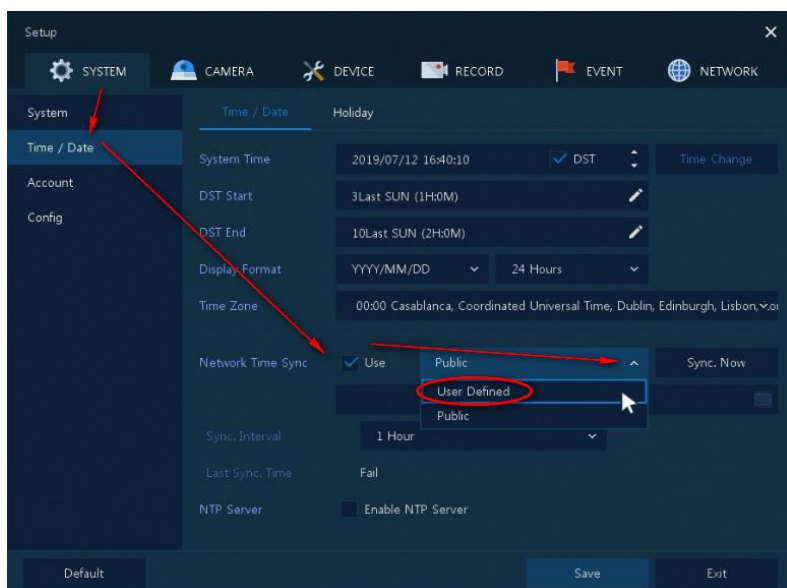


Fig 1

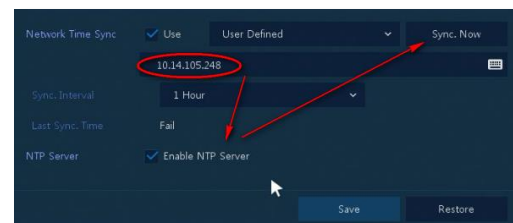


Fig 2

- Click to acknowledge the “Playback Time” warning (fig 3.)
- Confirm “**Success**” status is returned to confirm the NVR has synced its time to the chosen Single Time Source (fig 4.)!

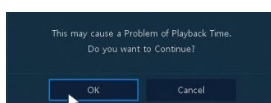


Fig 3

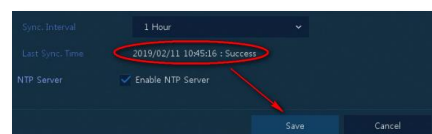
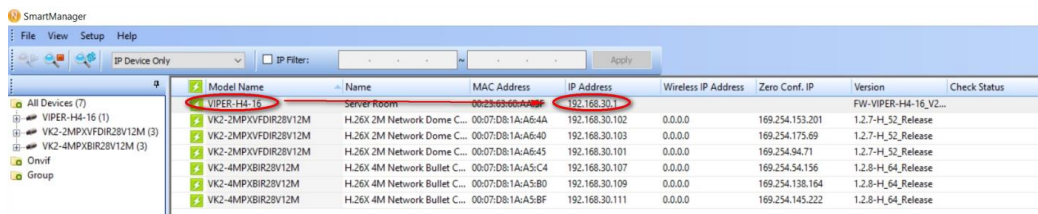


Fig 4

VK2 IP Camera Time-sync

You will need to connect a laptop's network cable to a spare PoE port on the Viper NVR and to have previously installed Vista's SmartManager application to search for Vista IP cameras and configure them. Make sure the laptop's IP address is set as DHCP!

Double-click the icon for Vista SmartManager and run it - within approximately 15 seconds all cameras on this Viper's PoE network should be discovered (example over page). Note the NVR's PoE IP address (192.168.30.1 default) – you'll set this IP address as the time source on all the discovered IP cameras!



Model Name	Name	MAC Address	IP Address	Wireless IP Address	Zero Conf. IP	Version	Check Status
VIPER-H4-16	Server Room	00:23:68:00:AA:0F	192.168.30.1			FW-VIPER-H4-16_V2...	
VK2-2MPXVFDIR2BV12M	H.26X 2M Network Dome C...	00:07:D8:1A:A6:4A	192.168.30.102	0.0.0.0	169.254.153.201	1.2.7-H_52_Release	
VK2-2MPXVFDIR2BV12M	H.26X 2M Network Dome C...	00:07:D8:1A:A6:40	192.168.30.103	0.0.0.0	169.254.175.69	1.2.7-H_52_Release	
VK2-2MPXVFDIR2BV12M	H.26X 2M Network Dome C...	00:07:D8:1A:A6:45	192.168.30.101	0.0.0.0	169.254.94.71	1.2.7-H_52_Release	
VK2-4MPXBIR2BV12M	H.26X 4M Network Bullet C...	00:07:D8:1A:A5:C4	192.168.30.107	0.0.0.0	169.254.54.156	1.2.8-H_64_Release	
VK2-4MPXBIR2BV12M	H.26X 4M Network Bullet C...	00:07:D8:1A:A5:B0	192.168.30.109	0.0.0.0	169.254.138.164	1.2.8-H_64_Release	
VK2-4MPXBIR2BV12M	H.26X 4M Network Bullet C...	00:07:D8:1A:A5:BF	192.168.30.111	0.0.0.0	169.254.145.222	1.2.8-H_64_Release	

Fig 5

- Right-click on the camera at the top of the list and select **[Remote Setup]** from the menu (fig 6.)
- Click the **[Date / Time]** menu (fig 7) and copy the dialogue box example below (fig 7.); setting options **Time Zone > Automatic Daylight > Synchronise with NTP > Date Format** then click **[Save]**

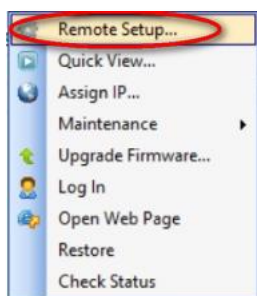


Fig 6

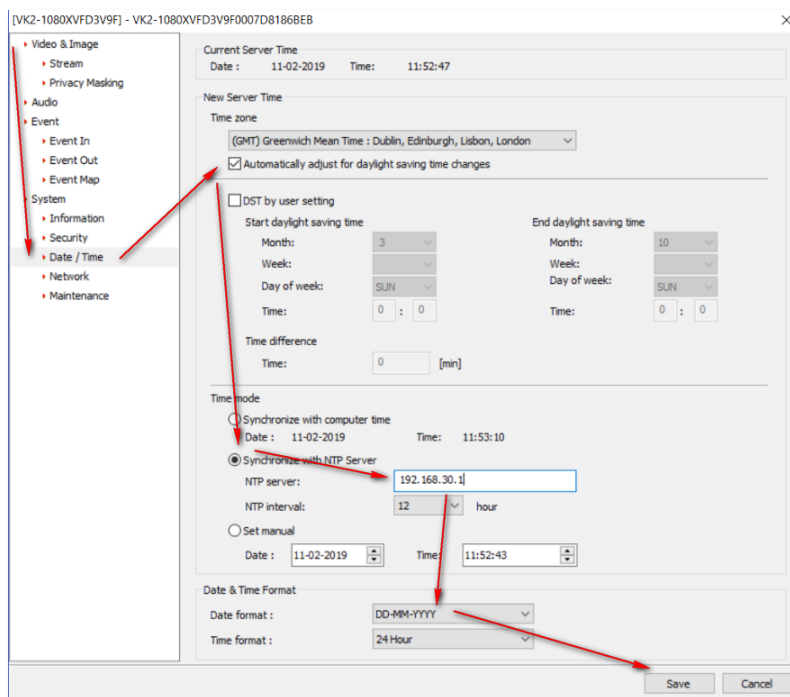


Fig 7

- Repeat the procedure for the remaining cameras on this NVR.

This completes the procedure for this NVR and it's cameras. Repeat on the remaining NVRs in your system.

Downloading Vista Smart Manager application

Visit the website url <http://vista-cctv.com/>

Click the links **Support > Downloads > Vista IP > VK2_IP Range > VK2_Software > Smart Manager**

Download the Smart manager .zip file, unzip and run setup.