

White Paper

ST7501 Performance with VIVOTEK 2-Megapixel Cameras

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Revision History

Version	Issue date	Author	Comment
1.0	2009/11/12	Peggy Li	First release

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Introduction

VIVOTEK's ST7501 Server program is able to record network video streams on up to 32 channels while ST7501 LiveClient allows for real-time remote monitoring. This report explains the performance of ST7501 when monitoring 32 channels of IP7161 2MP cameras at 1600x1200 video size.

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1. Equipment

ST7501

Version 1.2.1.3

PC model x1

CPU: Intel i7 920

Memory: DDR III 3G-1333

VGA card: Geforce 9800GT

Resolution: 1280x1024

Hard disk: SATA 1TB

Ethernet card: 1Gbps

IP7161 x32**Camera settings**

Firmware version: 0101c

Video codec: Mpeg-4

Video size: 1600x1200

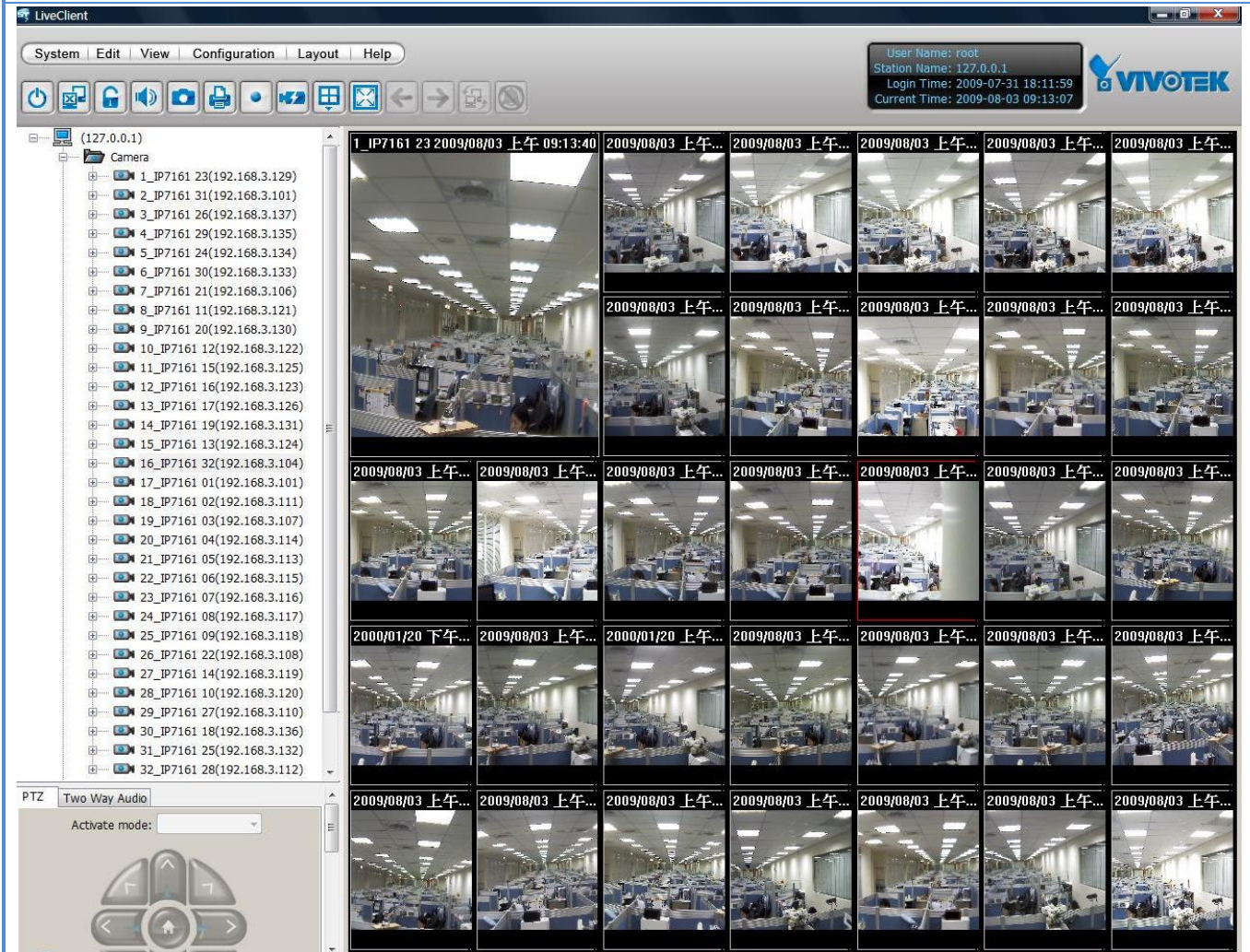
Maximum frame rate: 15fps

Intra frame period: 1s

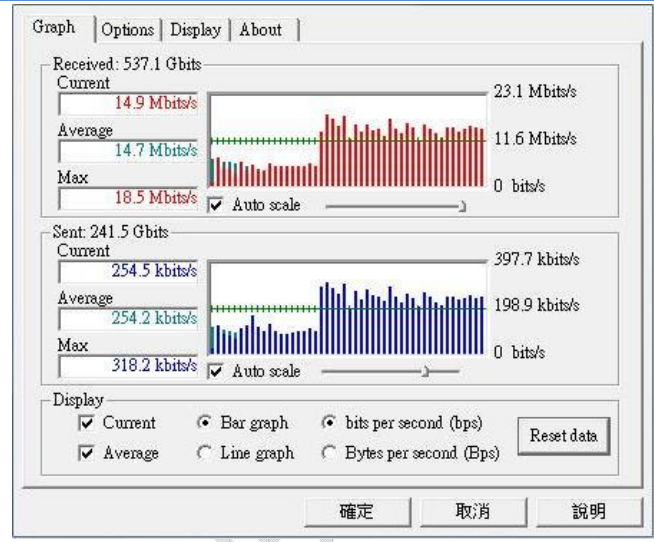
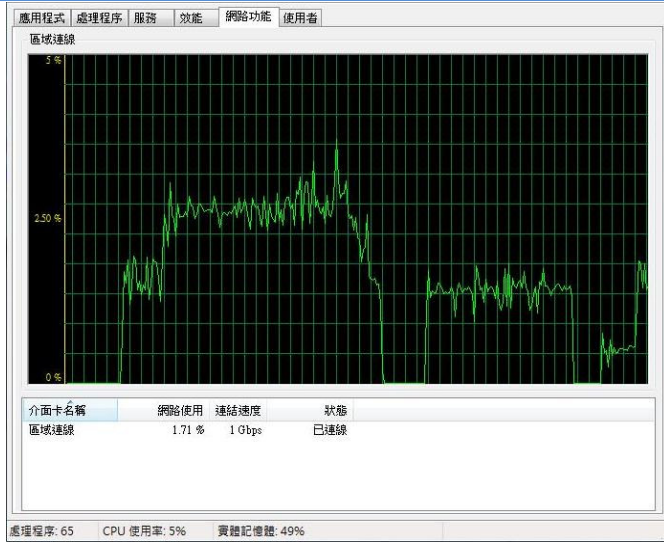
Video quality: Excellent

2. Performance

LiveClient: IP7161x32



4 cameras

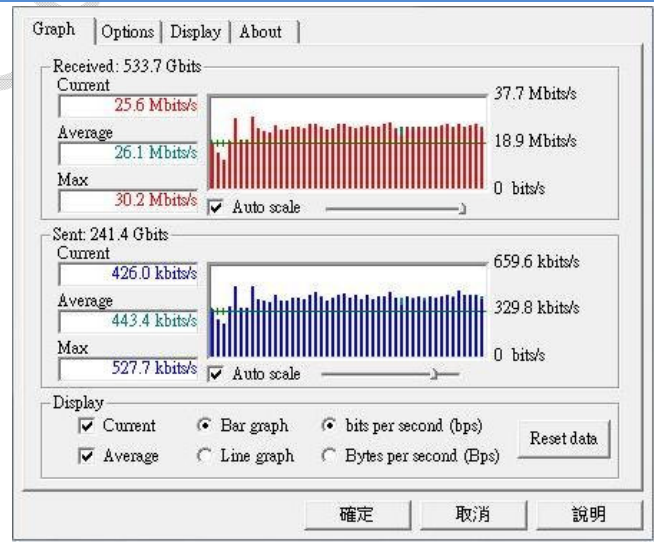
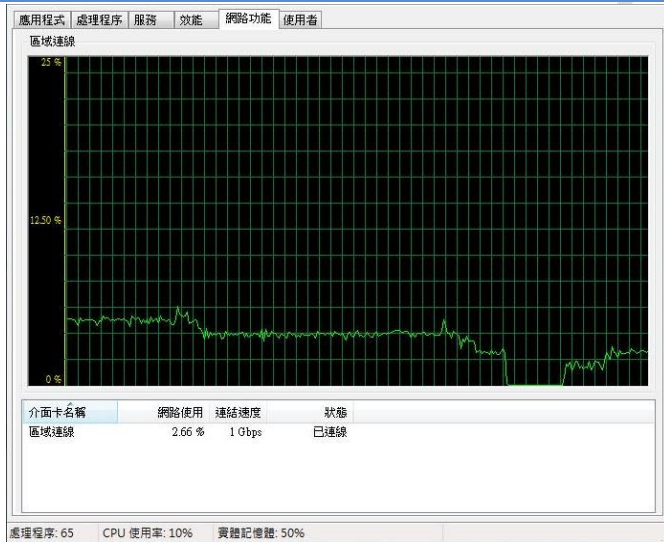


CPU usage: 5%

Network Utilization: 1.71%

Physical memory: 49%

8 cameras

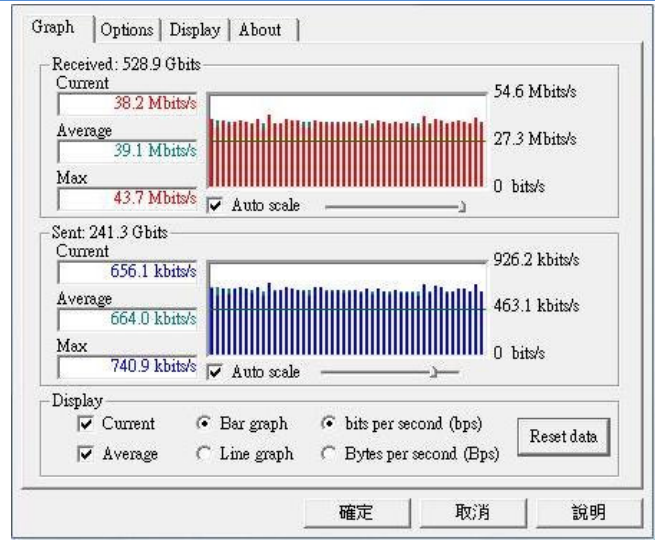


CPU usage: 10%

Network Utilization: 2.66%

Physical memory: 50%

12 cameras

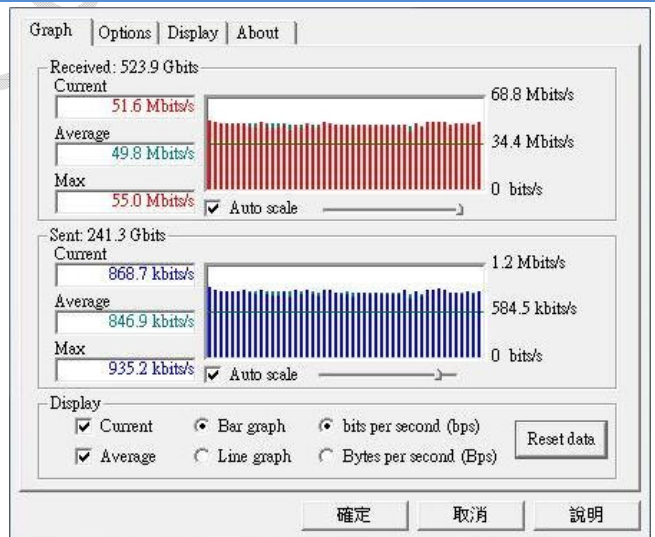
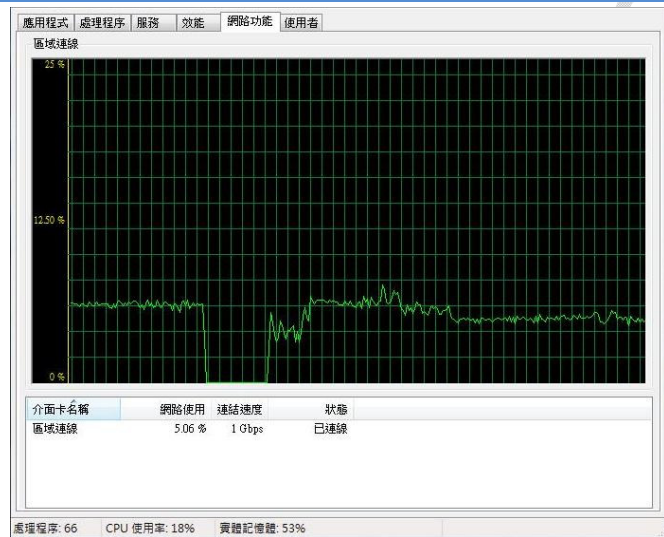


CPU usage: 12%

Network Utilization: 4.12%

Physical memory: 52%

16 cameras

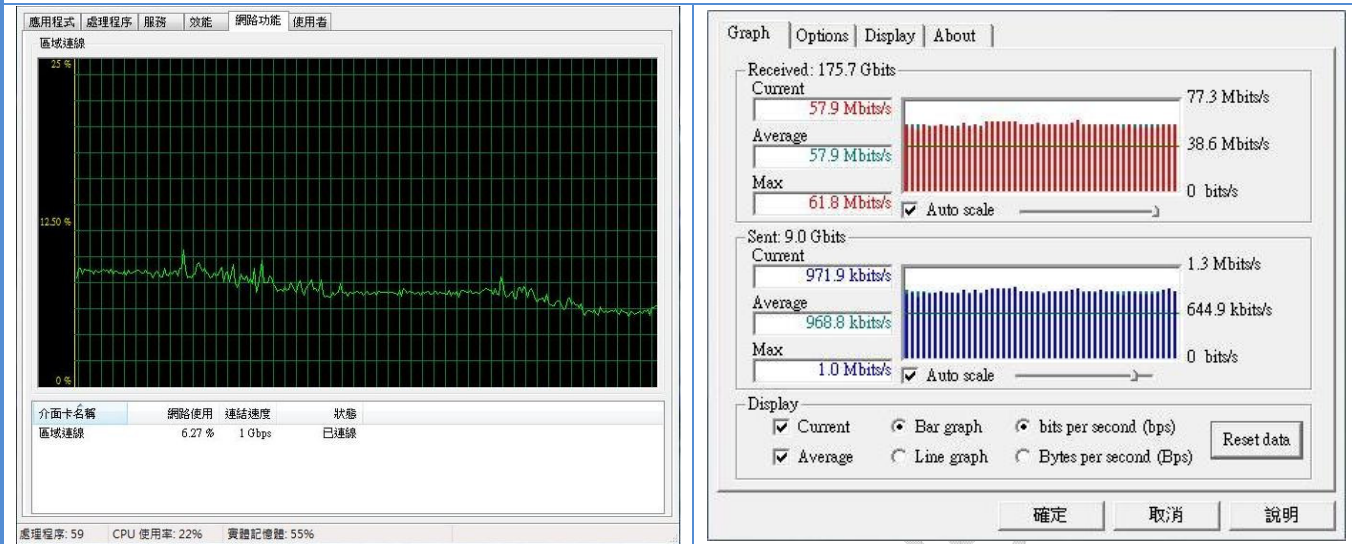


CPU usage: 18%

Network Utilization: 5.06%

Physical memory: 53%

20 cameras

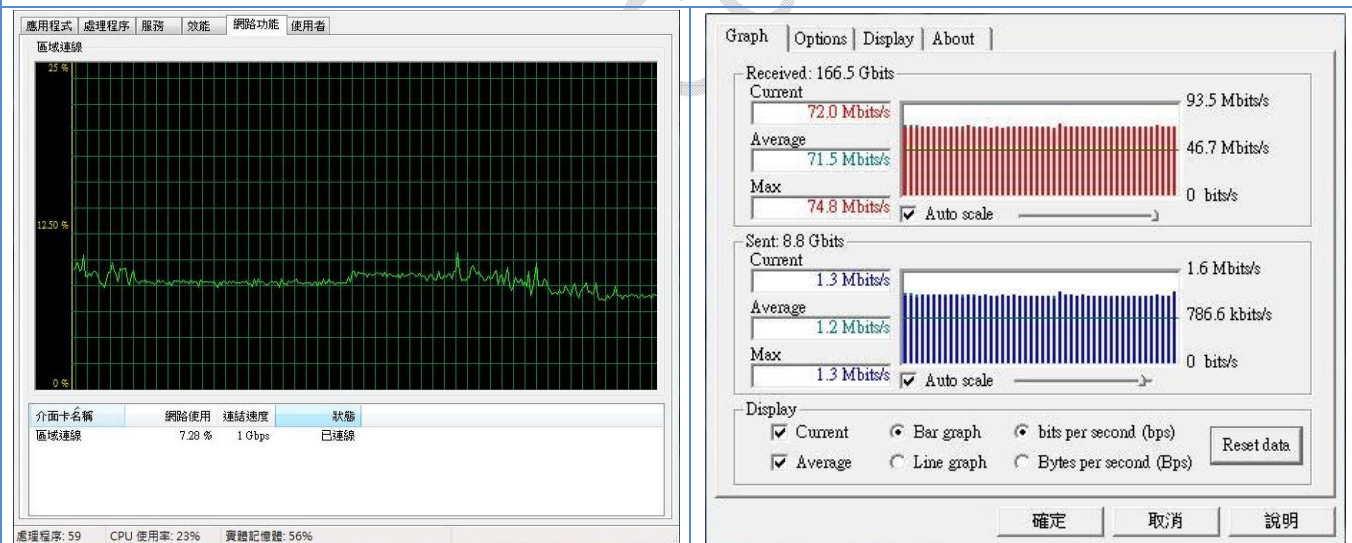


CPU usage: 22%

Network Utilization: 6.27%

Physical memory: 55%

24 cameras

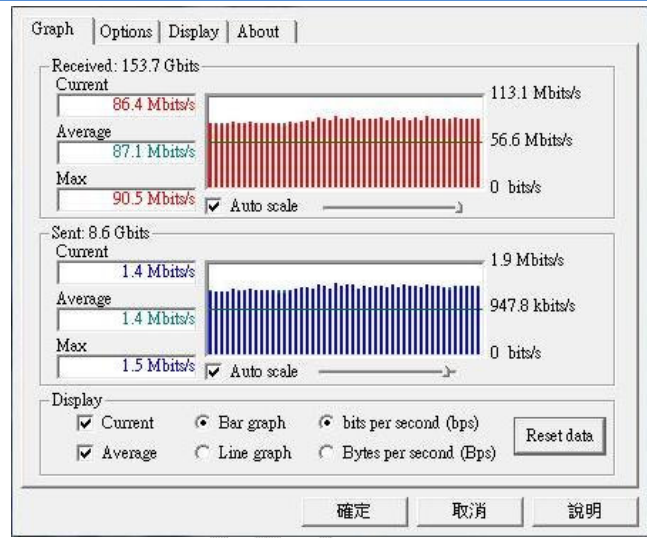
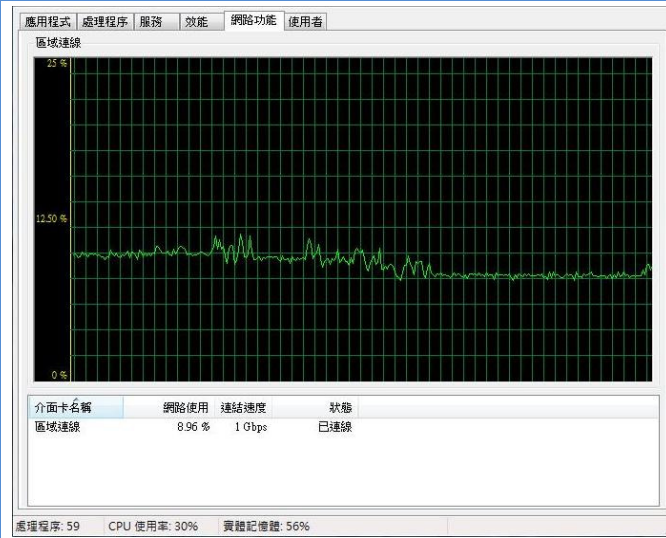


CPU usage: 23%

Network Utilization: 7.28%

Physical memory: 56%

28 cameras

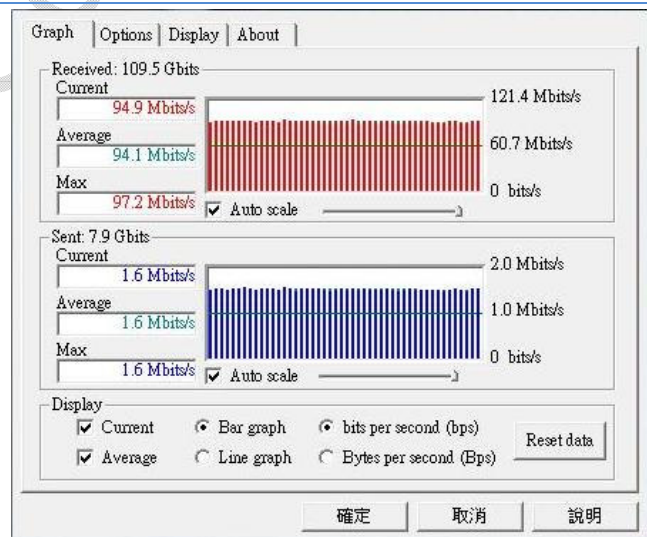
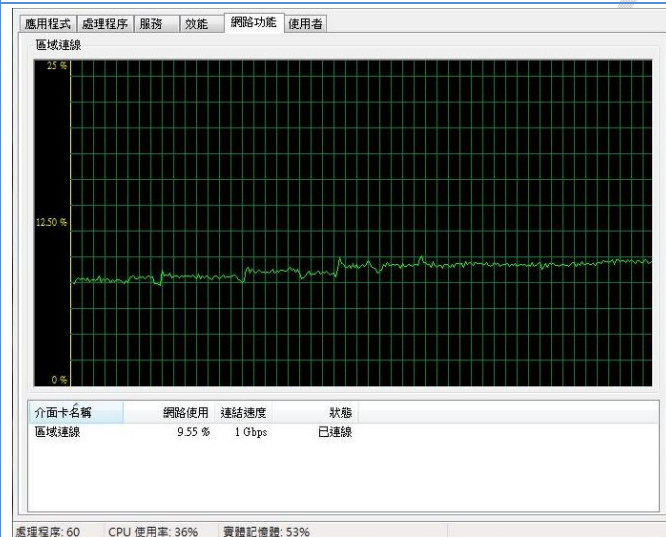


CPU usage: 30%

Network Utilization: 8.96%

Physical memory: 56%

32 cameras



CPU usage: 36%

Network Utilization: 9.55%

Physical memory: 53%