Security Precautions at La Trobe University, Bendigo Campus

How we track/locate infected machines

Presented by **Russell Bovaird**

Brief History

- School of Mines - 1873
- Teacher's College and Bendigo Institute of Technology amalgamated to form
  - Bendigo College of Advanced Education - 1976
- University College of Northern Victoria - 1991
- La Trobe University - 1994
- For more information see: http://www.latrobe.edu.au/bg/ben-his.html

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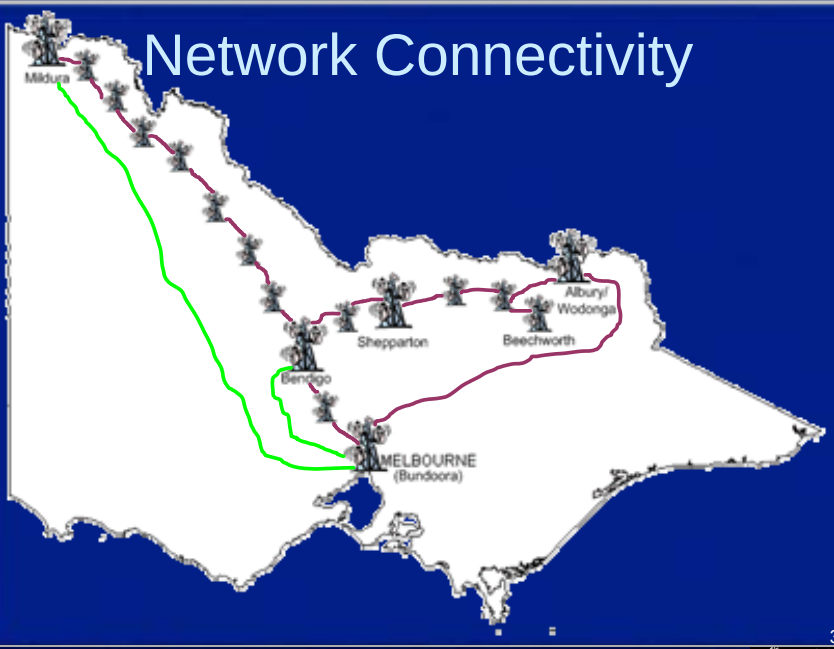
Network Connectivity



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Network Equipment

- Total Cisco Environment
- Core Network
  - 6500 routers
  - 4510 switches
- Mainly 3750s at floor levels

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Utilities

- Zone Alarm
  - Good logging facility
  - Easy viewing of logs
  - Commercial

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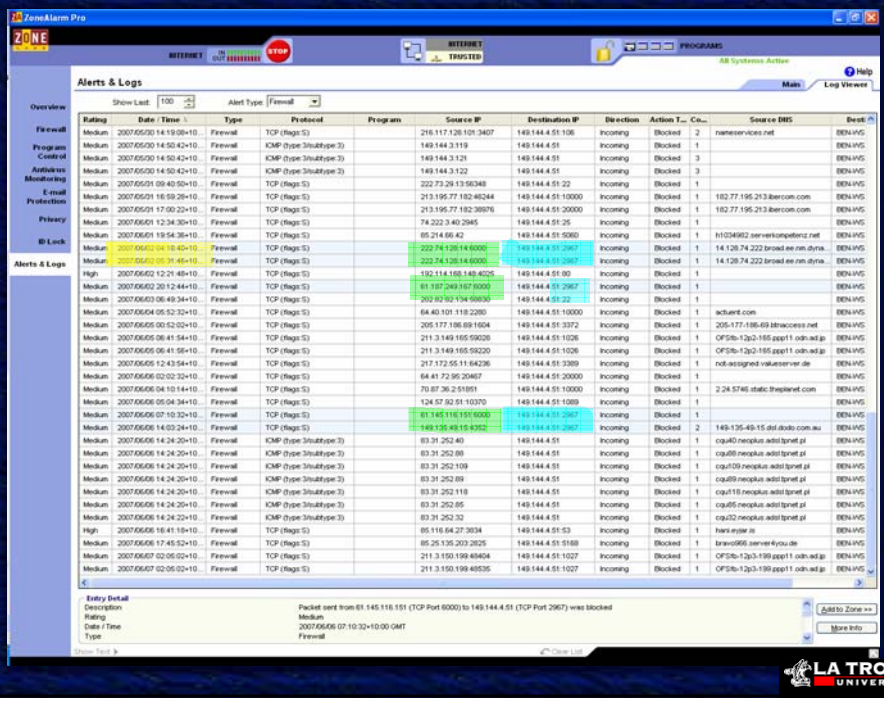

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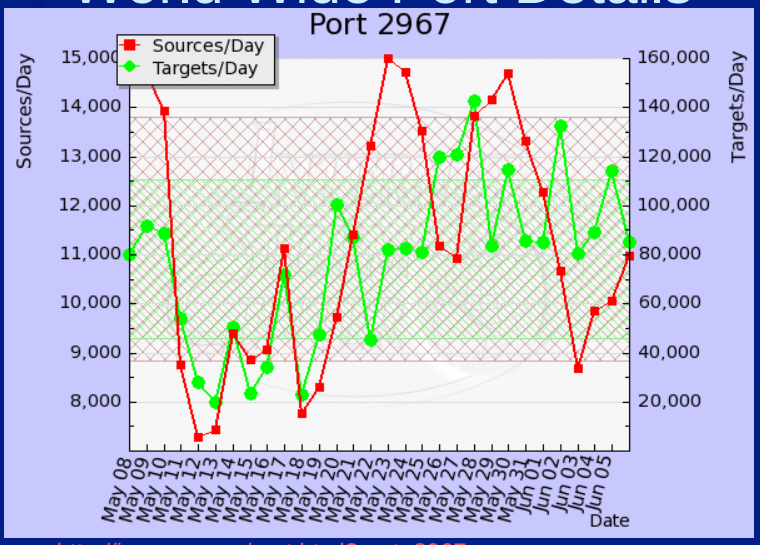
World Wide Port Details



Source: http://isc.sans.org/port.html?port=2967

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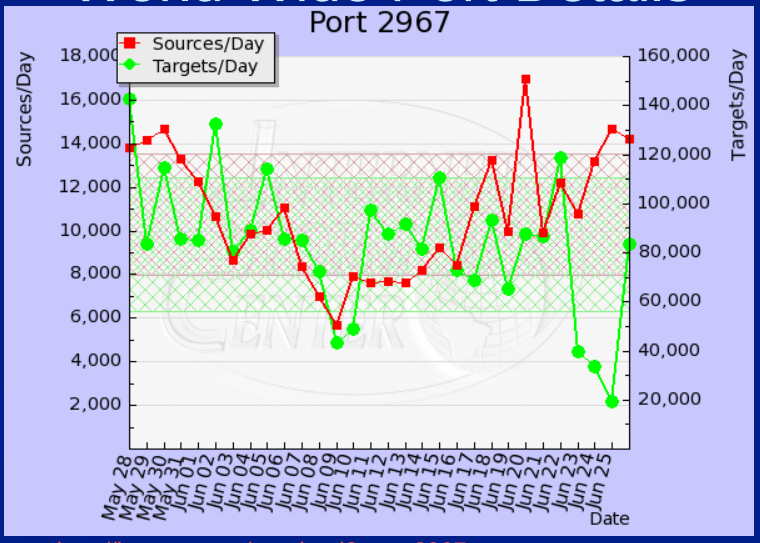
World Wide Port Details



Source: http://isc.sans.org/port.html?port=2967

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Utilities

- NBTSTAT
  - Windows only - Displays protocol statistics and current TCP/IP connections using NBT (NetBIOS over TCP/IP) – changed in XP SP2 and does not list user
  - Built into Windows operating system

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Nbtstat Output

Windows XP SP2

C:\>nbtstat -A 192.168.0.25

Local Area Connection:
Node IpAddress: [192.168.0.51] Scope Id: [ ]

NetBIOS Remote Machine Name Table

Name	Type	Status
BEN-LAB25	<00> UNIQUE	Registered
STUDENTS	<00> GROUP	Registered
BEN-LAB25	<20> UNIQUE	Registered
STUDENTS	<1E> GROUP	Registered

MAC Address = 00-12-3F-C0-99-F9

Windows 2000/XP SP1

C:\>nbtstat -A 192.168.0.153

Local Area Connection:
Node IpAddress: [192.168.0.51] Scope Id: [ ]

NetBIOS Remote Machine Name Table

Name	Type	Status
BEN-WS199700	<00> UNIQUE	Registered
LTU Domain	<00> GROUP	Registered
BEN-WS199700	<03> UNIQUE	Registered
BEN-WS199700	<20> UNIQUE	Registered
BEN-WS199700$	<03> UNIQUE	Registered
LTU Domain	<1E> GROUP	Registered
BRUBBLE	<03> UNIQUE	Registered

MAC Address = 00-D4-23-0D-C8-55

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Utilities

- StatSeeker
  - Shows traffic on the monitored port
  - Ingress and egress to the Bendigo Campus
  - Commercial

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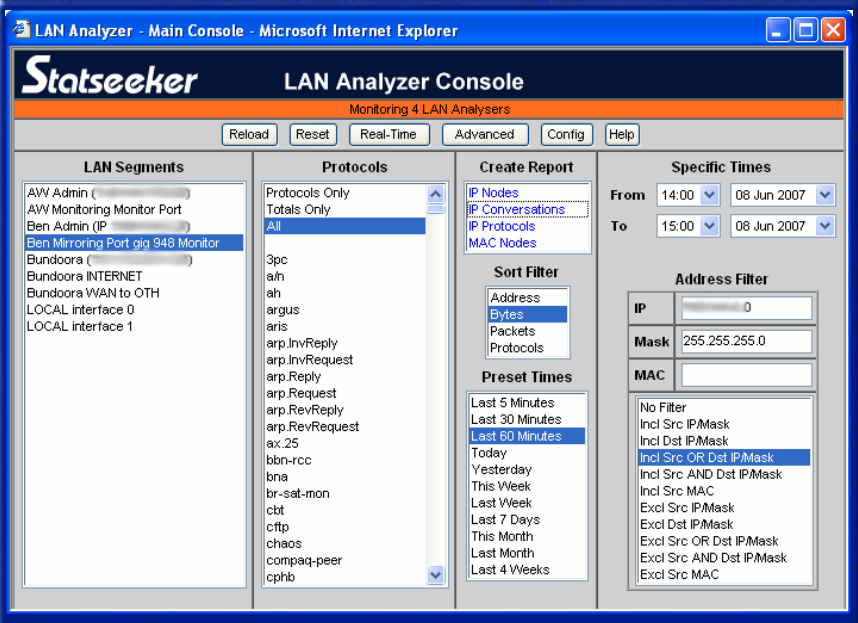

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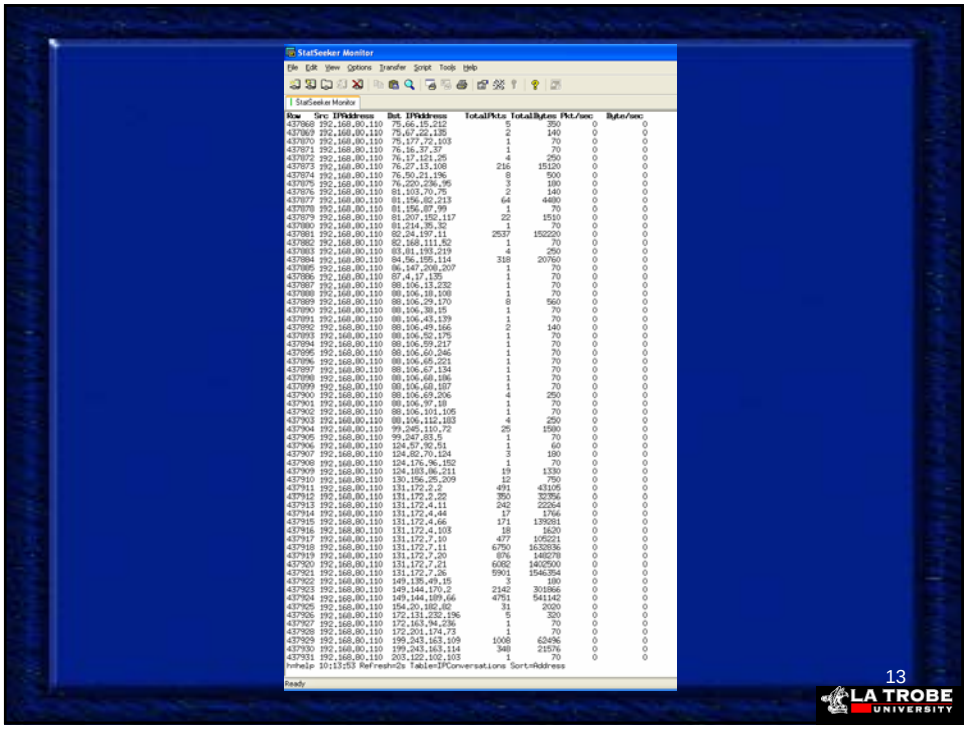

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Bendigo IP Admin DB

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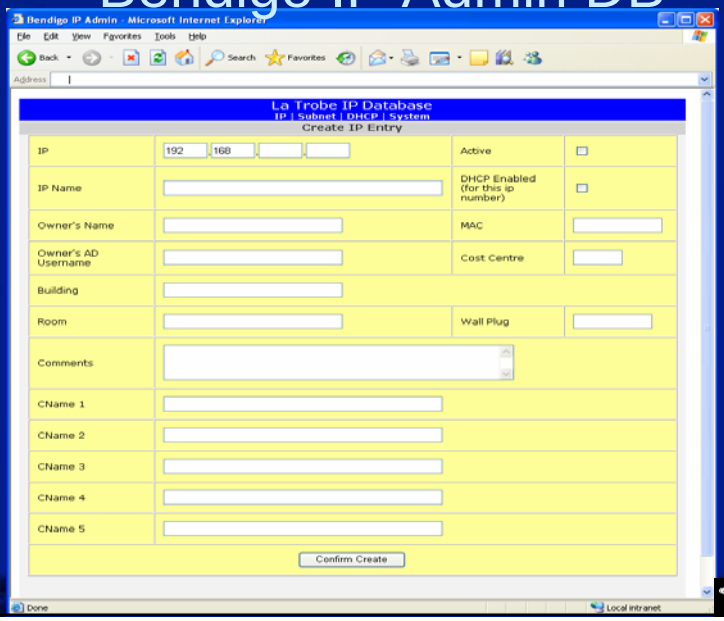
Bendigo IP Admin DB



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Login Script

- Date
- Time
- AD username
- Name
- IP Number
- AD Computer Name
- Operating System
- Administrator of Machine?
- Service Pack details
- Free HD Space
- Speed of Processor
- Memory on Machine
- MAC Address

2007/05/17,15:23:51,jstone,John Stone,192.168. 0. 26,BEN-WS781824,OS='Windows XP Professional',Admin=No,SP=2,MbFree=10824,Mhz=2793,Mem=503,Mac=000D7EA4D477

2007/05/17,15:25:50,fflintstone,Fredrick Flintstone,192.168. 0.132,BEN-WS688753,OS='Windows XP Professional',Admin=No,SP=2,MbFree=8112,Mhz=1494,Mem=511,Mac=00A6235DBE58

2007/05/17,15:26:47,erubble,Elizabeth Rubble,192.168. 0.105,BEN-WS902359,OS='Windows XP Professional',Admin=Yes,SP=2,MbFree=99160,Mhz=2990,Mem=2045,Mac=001E8BADFAFC

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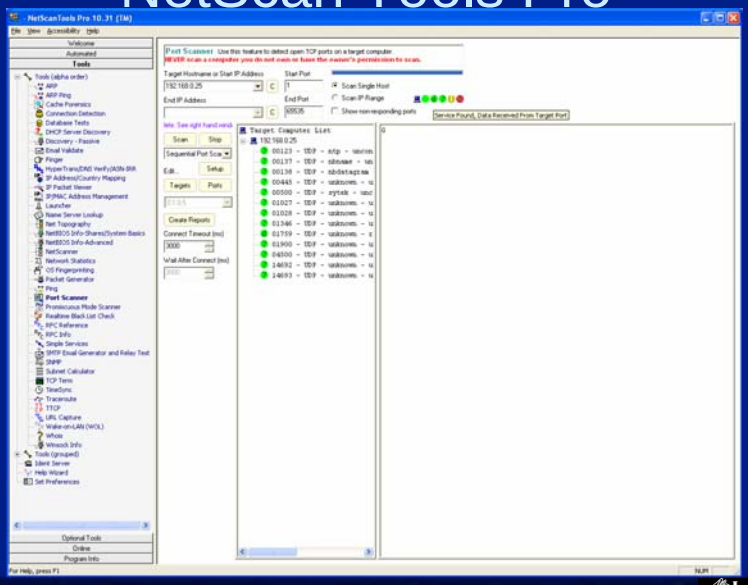
NetScan Tools Pro



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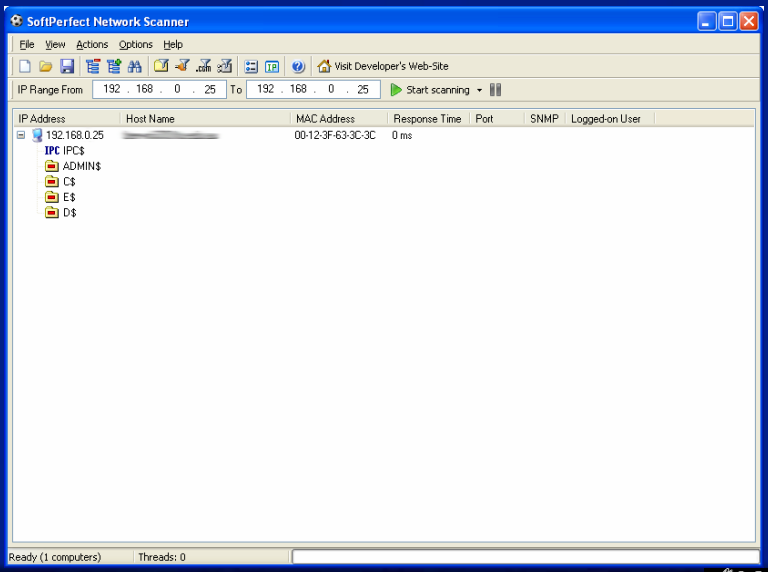
SoftPerfect Network Scanner



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Precautionary Resources

- SUS Updater
  - Automatically dispenses MS updates
- Anti Virus Software – Sophos
- Sophos PureMessage – Email
  - Spam & Virus Filtering

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Sophos PureMessage Statistics

	March	April
Legit email	905,863	406,267
Spam	4,390,340	1,991,935
Virus	25,657	8,515

	May	June
Legit email	381,359	749,554
Spam	1,175,697	2,248,184
Virus	3,025	5,540

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Other Resources Used

- Cisco PIX firewall
- Monitoring Analysis Response System (MARS)
  - Alerts and rules for suspicious activity

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Takedown Policy

- 24 hours to remove from Network
- If not done within 72 hours port disabled
- Immediate removal if a threat to ICT environment
- Analysis of device to be undertaken
- Device should be rebuilt **NOT** repaired
- Needs approval to be reconnected to network

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