Mikrotik as SOHO Router
Lessons learned

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Introduction

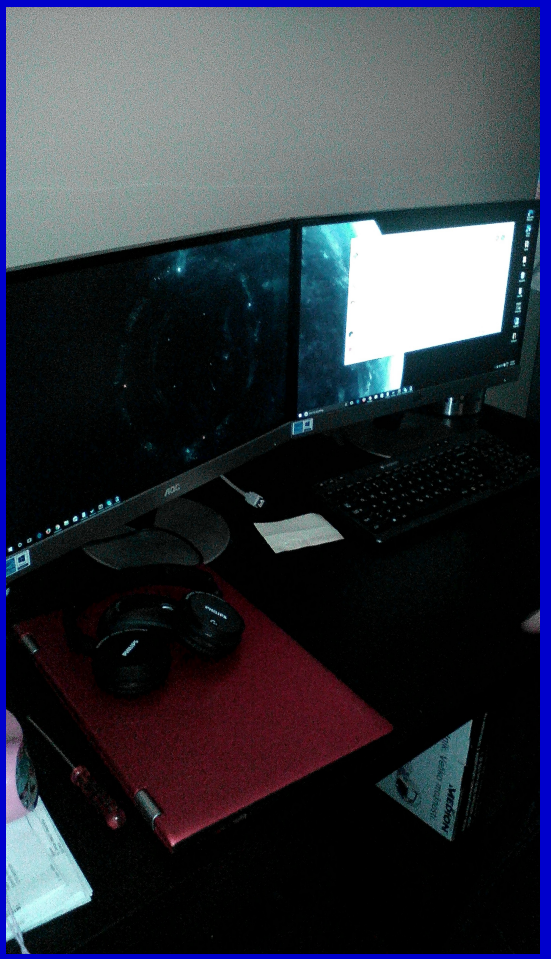
- What is SOHO: Small Office / Home Office Environment
- Why is it important
- What are the requirements: VPN, Security, Audit logs, Network Partitioning, Dynamic Routing, Reliability, Serviceability – Remote Access,Reasonable Cost

Who are we?

- Small company
- R&S experience (Cisco CCIE background)
- Lot's of small projects, a few bigger
- Mikrotik, Cisco, Juniper, and ton of other vendors
- Coffe anyone

Why SOHO?

- Cost savings: employee satisfaction
- Efficiency - “Cost effective office”

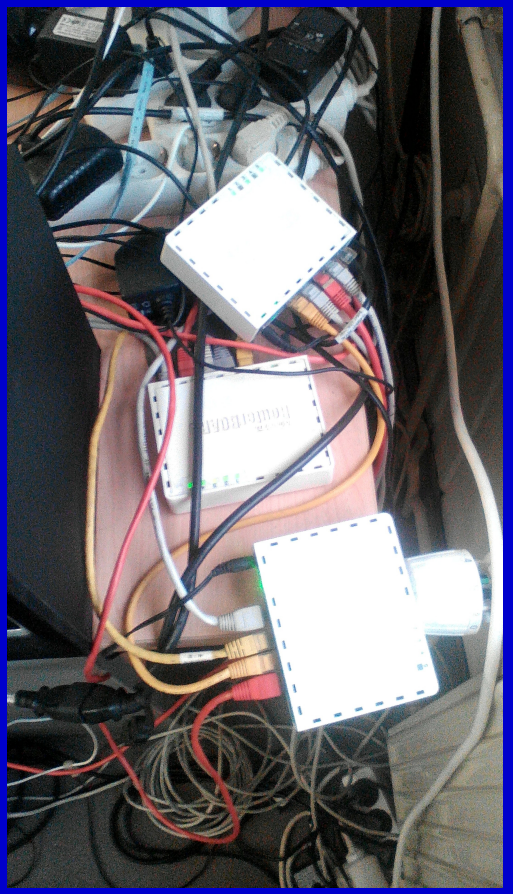


Who?

- Enterprises – large companies with at least 1000 computer using employees?
- Small and Medium business with 5 employees

Why not!

- High cost of communication lines – Internet access lines
- Security
- Complexity
- Managing headache
- All these are obstacles are now days more or less gone



Tier1 vendor approach

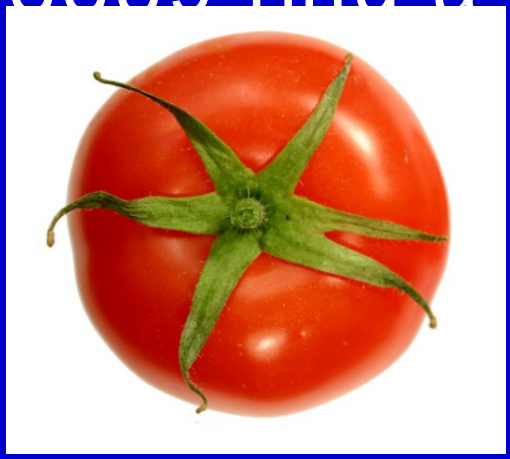
- $€500/month leased line or frame-relay servic
- $€500 router or VPN endpoint
- $€10000 head end device
- $€5000 management suite
- $€50 end point software license
- $€800/day low performance consultant

Is this really for SMB market

- No
- Large enterprises:
  - Have (access to) huge IT departments = Can affor it/IT
  - Get big discounts
  - Carry weight with vendors

Reality

- $€50 (Tomato) “Linksys”
- Free IT headache
- Port address translation – drilling holes in your firewall (remote desktop port 3389 ring a bell)
- No true DMZ
- No audit and logging



Is this suitable for SMB?

- No standards
- No functionality
- No security, Audit
- Not reliable
- Not manageable
- No upgrade path

Solution: Miktotik

- Product range (750, RB800 up to 50Mbps 3DES)
- Price point
- Functionality
- Security
- Track record of product development and software functionality and stability (remember 3.30)
- Trained professionals - community

Example: Home office

- Router Mtik 750, GS250 switch
- Tipical uptime 1 year (power outages and software bugs limit uptime)
- Hardware lifetime > 4 years
- ...

Example: Small office

- Possibly bigger model if 3DES is required
- Bigger switch
- Other than that the recepie is the same

Example: Road warrior

- Typically using PPTP technology for VPN to office as it is available on almost all devices except MS Windows Phone
- All apps (such as email, internal web, etc.) available on mobile device

Example: Ethernet over IP

- Problem:
  - Windows firewall issue
  - Soft migration of an office
- Solution:
  - Transparently switch LAN over public Internet

Considerations

- ISP service track record
- Power failure, power spikes (on data lines)
- Equipment reliability
- Software reliability
- Security Audit (splunk?)
- Wifi security

Recommendation

- Go slow
- Build experience
- Test
- Hire help :)