

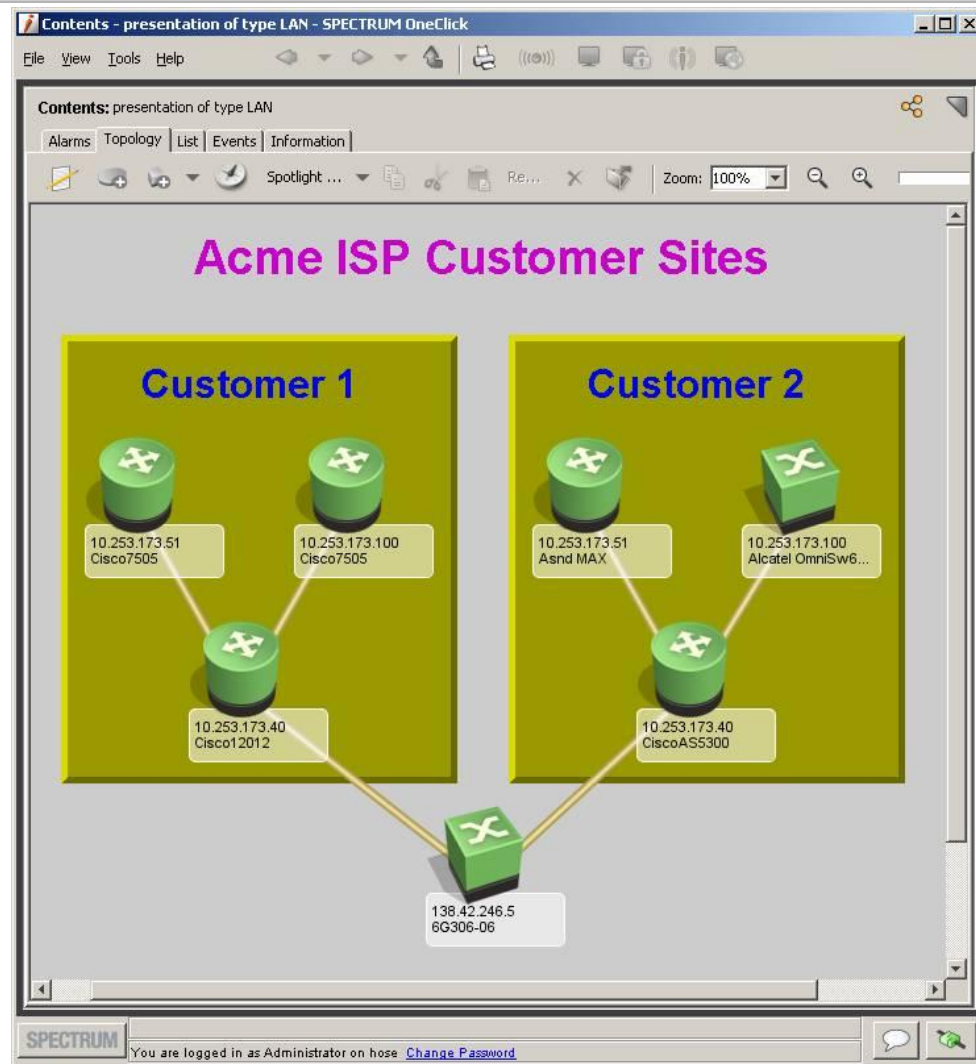
Assuring Performance and Availability with a Managed Service Provider

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Managing Private Address Space

- > Private IP addressing (rfc1918) allows customers to satisfy their own IP address needs without external influence
- > The chance of two or more customers having the same IP address ranges is very high
- > How to manage two different devices with the same IP?

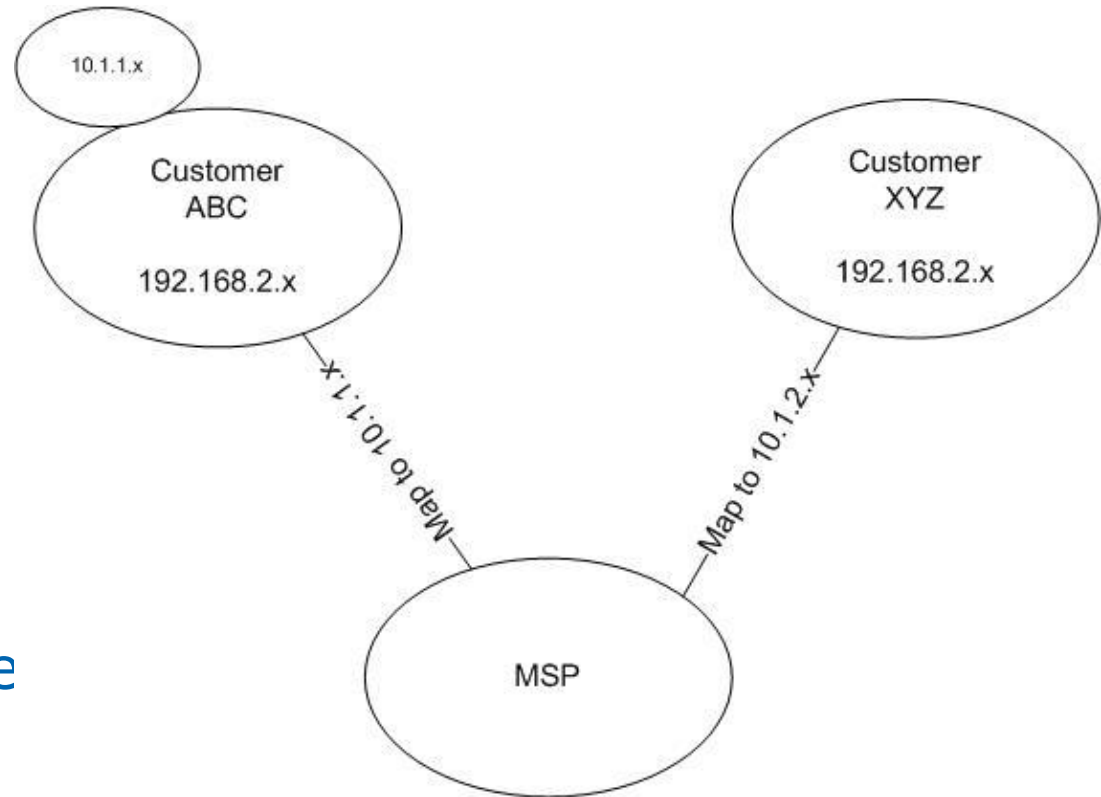


Solutions to the Problem

- > Static Network Address Translation (NAT)
- > Intelligent Proxies
 - Secure Domain Manager/Connector for Spectrum
 - Remote Poller for eHealth
- > Hybrid Approach of Dedicated Systems/Proxies and NAT

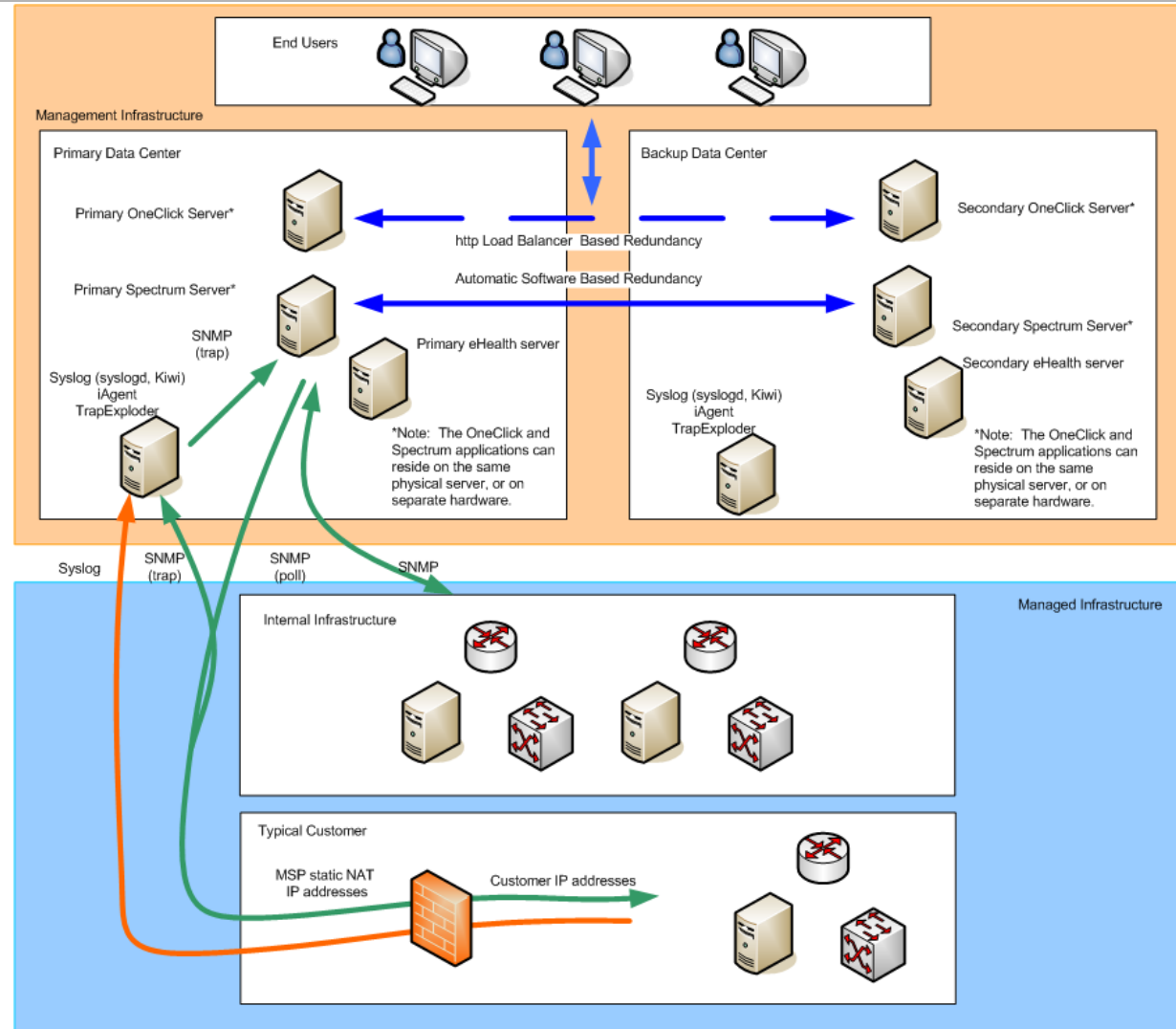
Using Static Network Address Translation

- > MSP creates a private IP address space for management
- > SNAT devices are deployed at each customer site
- > Static mappings are created between the IP address of each managed device to the managed IP space



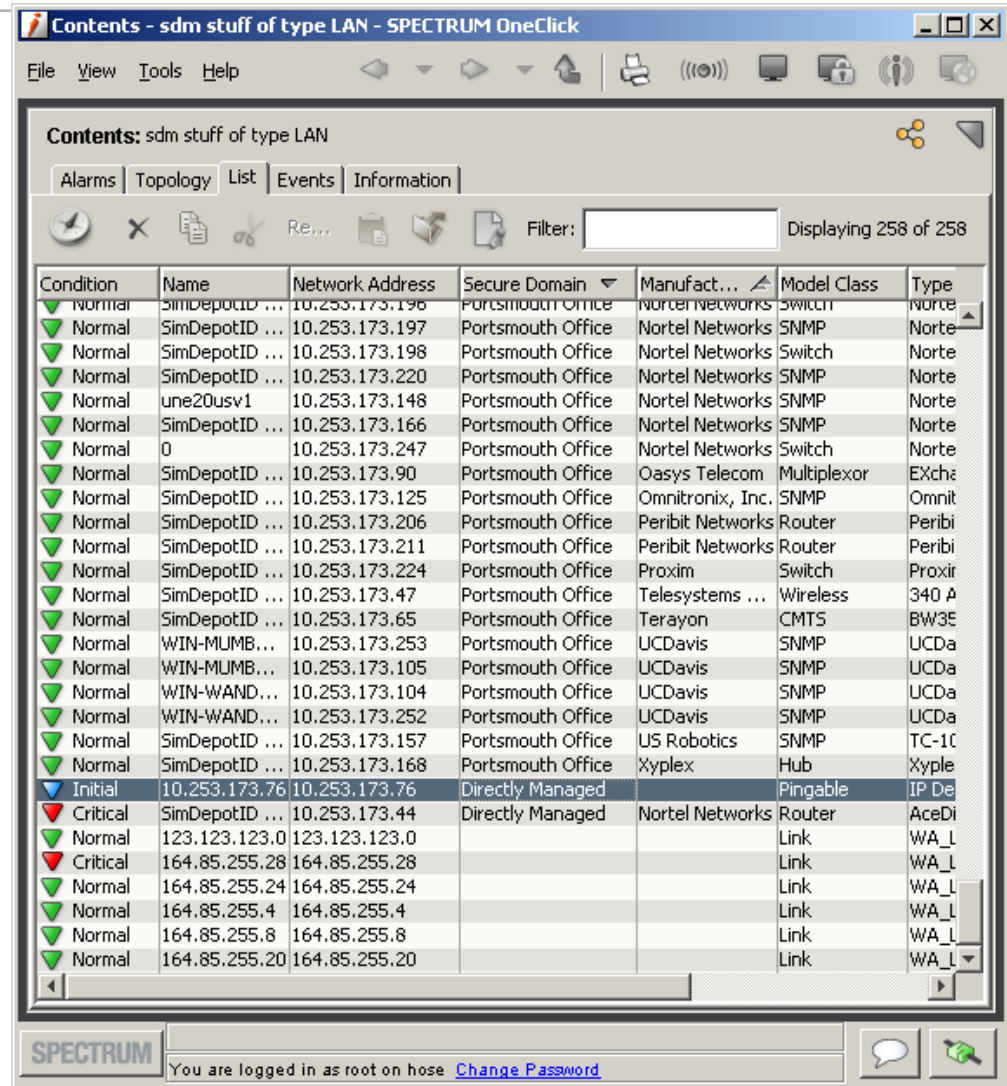
Using Static Network Address Translation

- > Spectrum and eHealth integration function out of the box
- > TrapExploder needed to rewrite agent address in SNMP trap header
- > Layer 3 discover is not very functional
- > Provisioning new devices is cumbersome.
- > Can't just discover a customer network. Devices need to be provisioned.



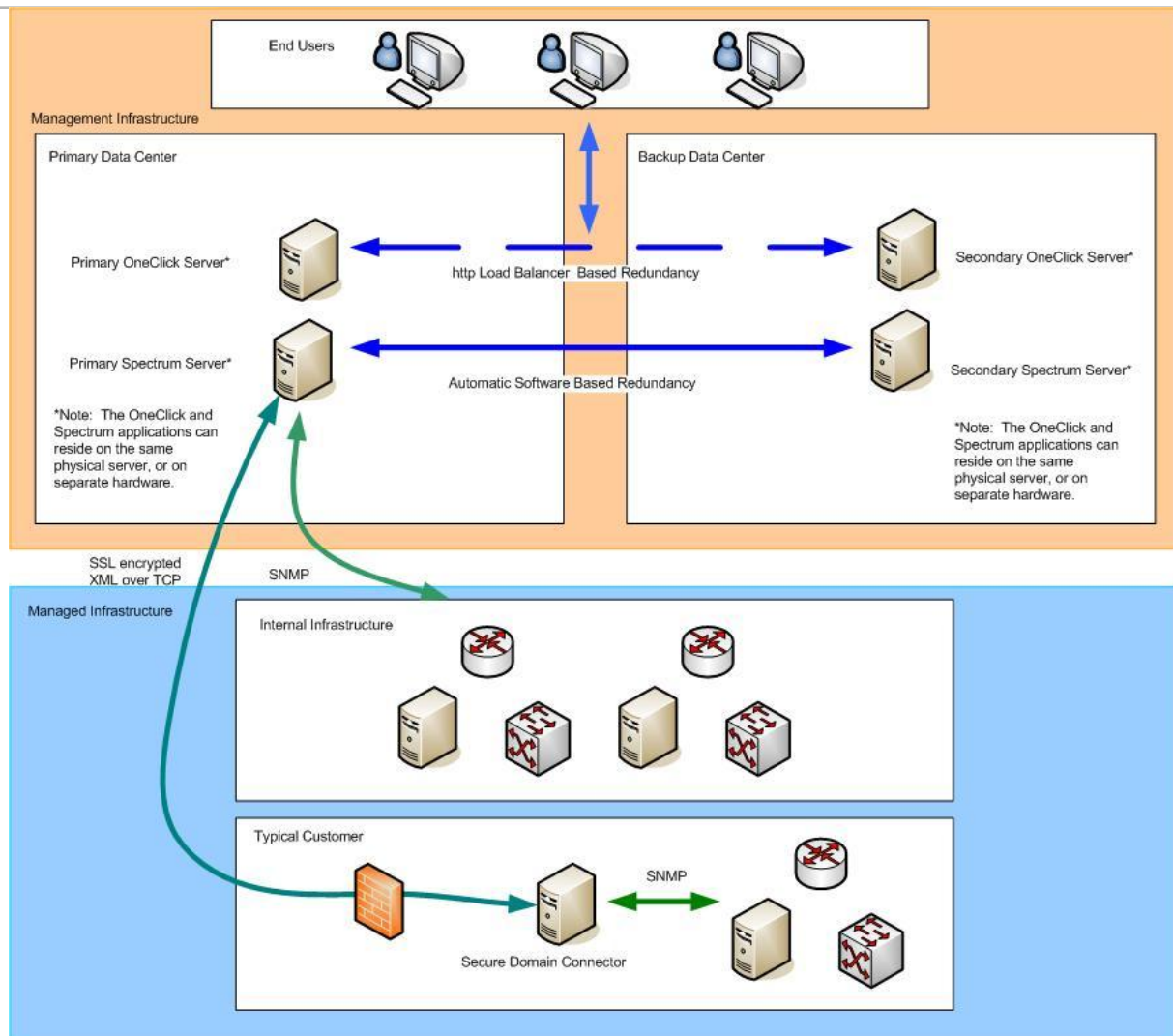
Using Intelligent Proxies

- > Proxy agent is installed at customer premise
 - Secure Domain Manager / Connector for Spectrum
 - Remote Poller for eHealth
- > Management software connects with proxy to communicate with managed devices
- > Management software includes proxy ID to distinguish between overlapping IP address spaces.



Using Intelligent Proxies

- > Improved discovery capability over SNAT
- > No trap header rewriting needed
- > Devices are managed with actual IP instead of NAT
- > Ease of ongoing support
- > Current integration between Spectrum and eHealth is incompatible



Using a Hybrid Approach

- > A customer may be large enough to warrant their own Spectrum and eHealth server(s)
 - Designate Spectrum and eHealth server(s) for use only by that customer
 - Use VPN or other remote access to manage customer network directly from management servers
 - Intelligent proxies could be used (non overlapping IP)
 - Spectrum / eHealth integration fully functional

- > For smaller customers, use SNAT or Intelligent Proxies

Thank You.