



i n v e n t

How HP Services SANs with Speedy Suitable Standoff Tools

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Outline

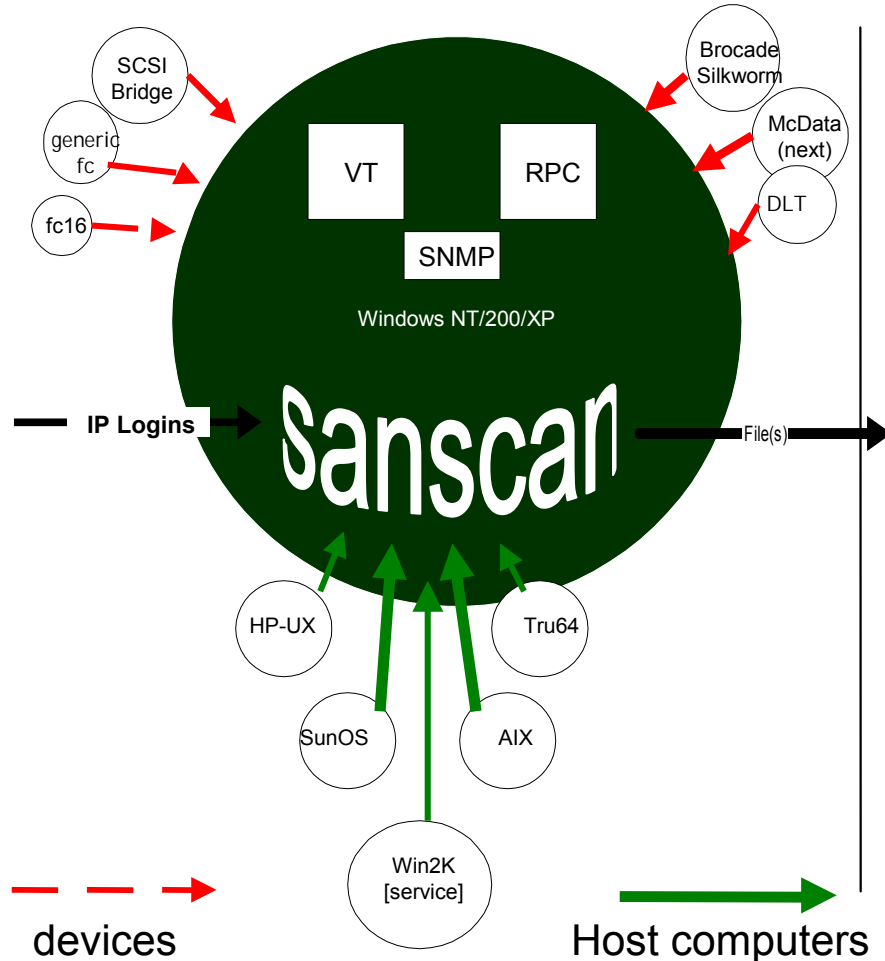
- Sample customer engagement model
- Speedy SAN Scan takes picture of customer network
- Standoff SAN Detail diagnoses the network
- SAN website portal
- Suitable SAN Designer redesigns the network
- Conclusion: speedy, standoff, suitable customer benefit
- Acknowledgements and references
- Demonstration
- Questions and answers

Sample Customer Engagement

- Customer requests HP to upgrade pre-existing Storage Area Network
- HP collects network configuration with standoff SAN Scan
- HP analyzes the SAN Scan results with proprietary SAN Diagnostic package SAN Detail
- HP feeds the SAN Detail output into HP SAN Designer and enters data flow requirements
- HP SAN Designer redesigns new SAN for customer using patented HP Labs algorithms
- HP SAN Designer checks the design for potential problems
- HP orders and installs pre-checked upgrade

SAN Scan of Customer Network

Customer Environment

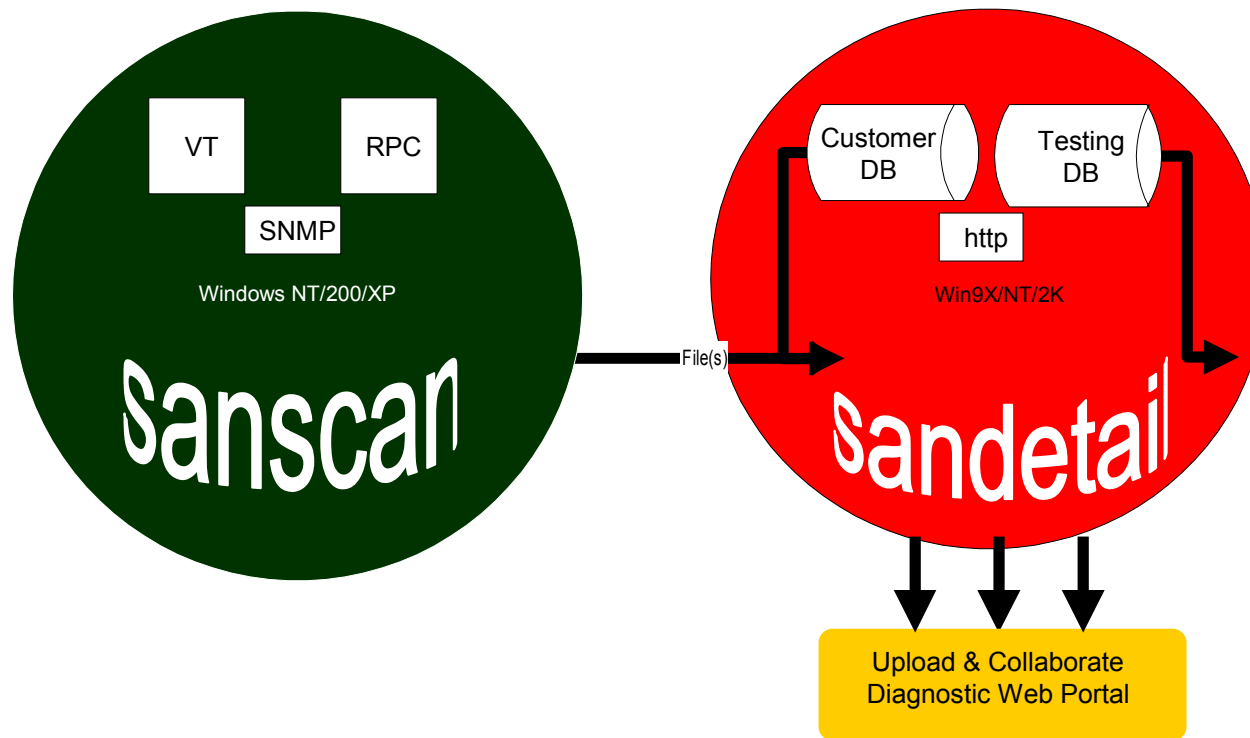


- Minimal installation prerequisites
- Compatible with many customer SAN architectures
- Does not require the purchase of specific SAN management software licenses
- Ideal for use in the change control environments
- Gathers data from single standoff management node

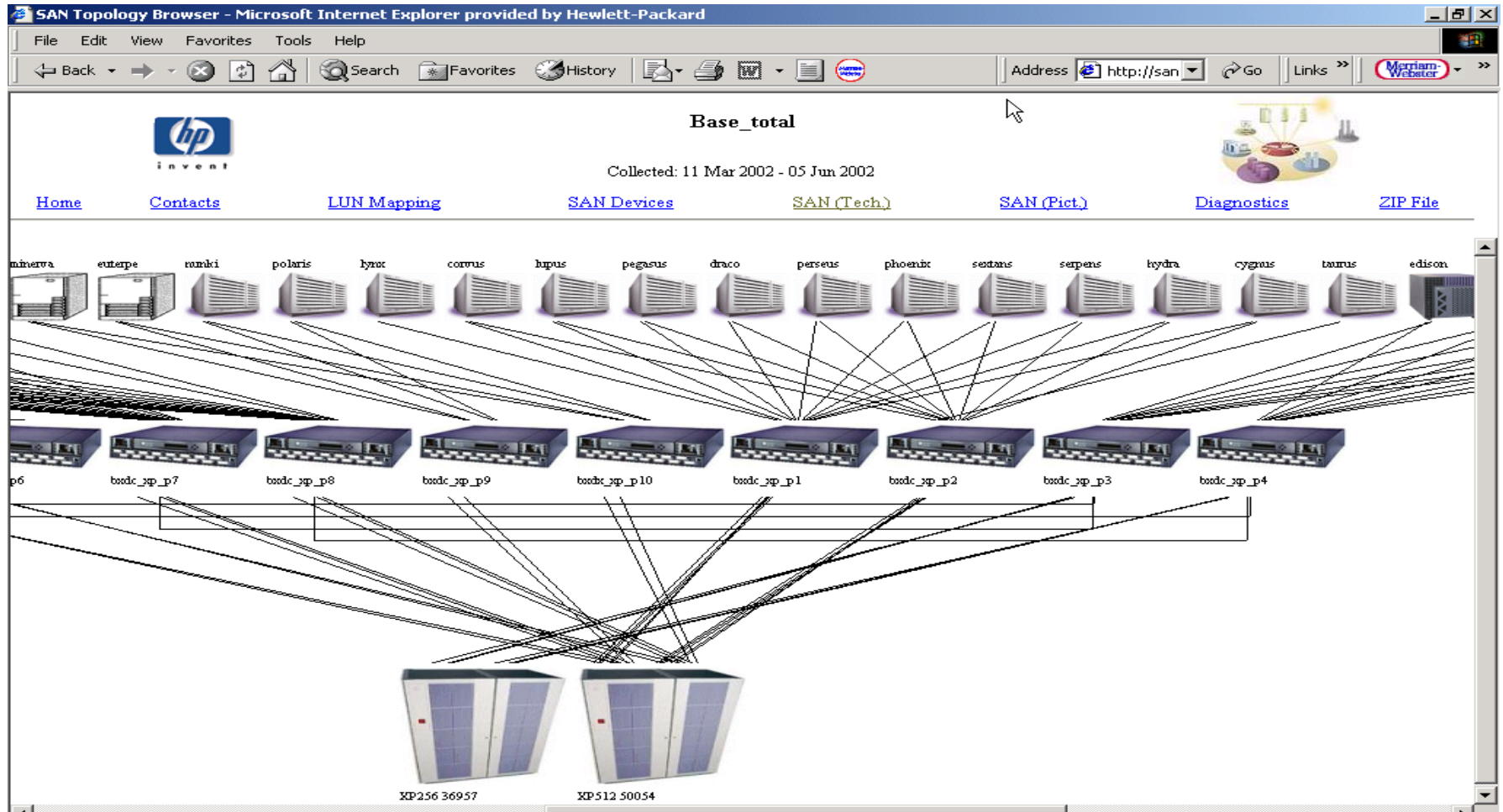
SAN Detail Checker

Computer at Customer Site

SAN Consultant Laptop

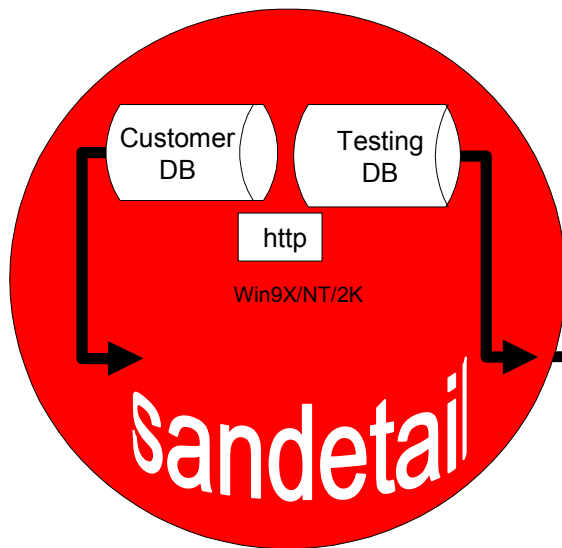


Web Portal Screen Shot

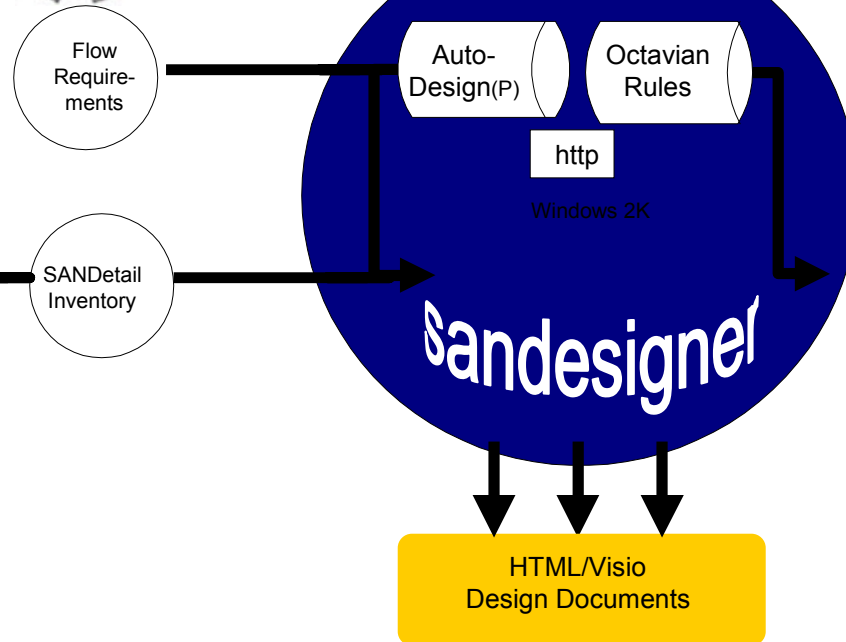


HP Labs Filed Plethora of Utility Patents for Algorithms that Automatically Design Suitable SANs

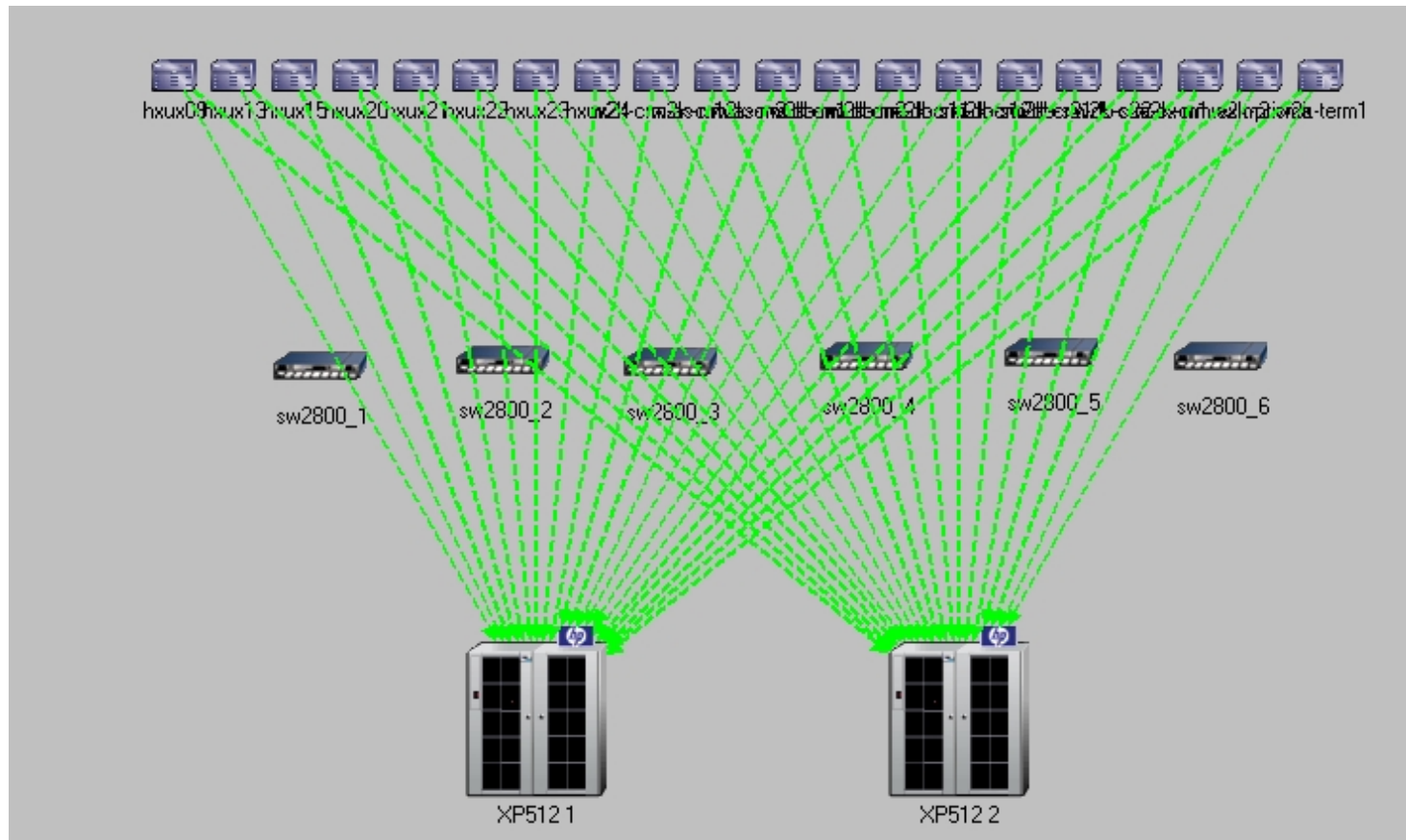
SAN Consultant Laptop



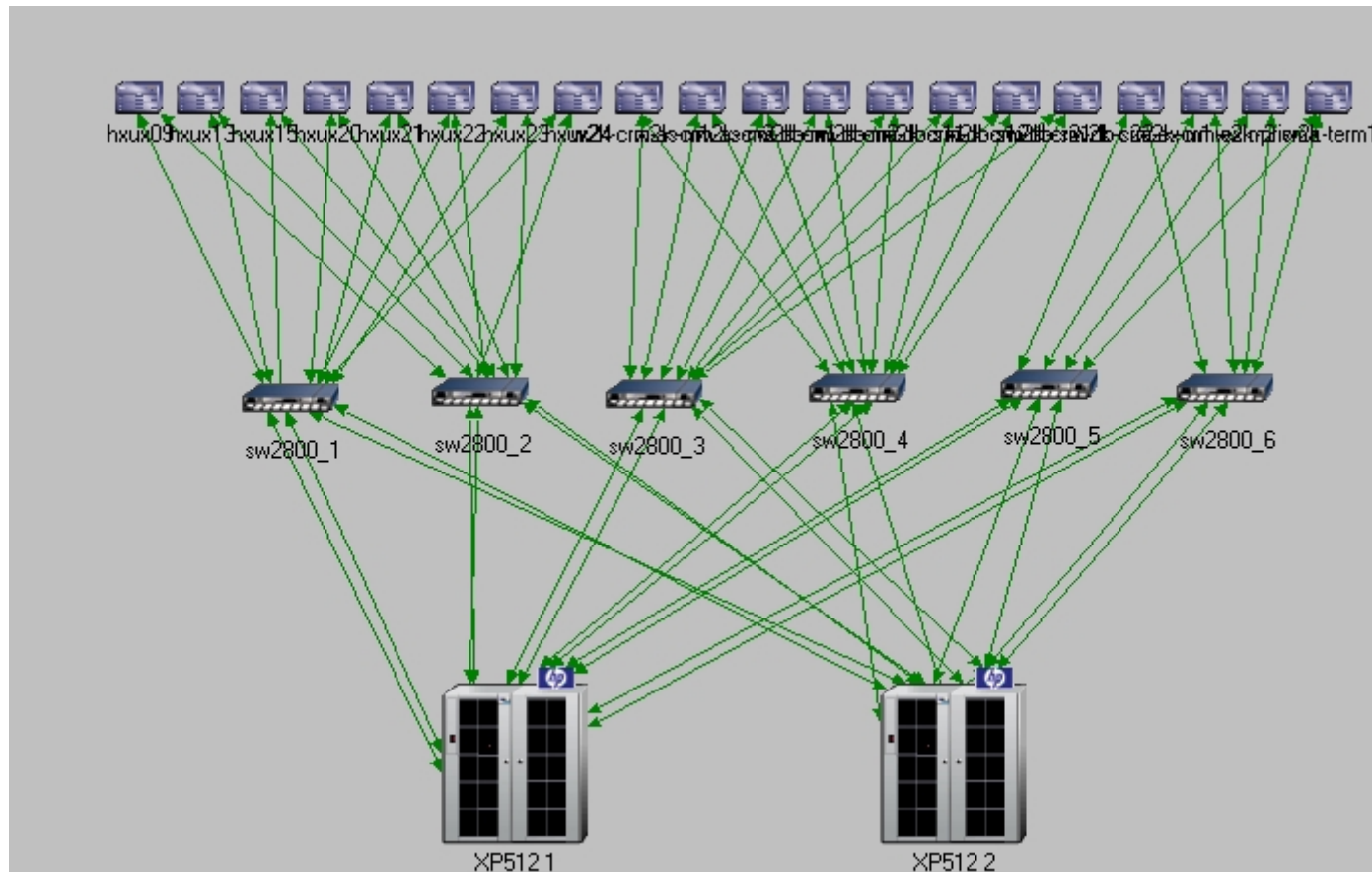
Presales Computer



Input to HP SAN Designer



Fabric Design Output



Conclusion

- Speedy SAN Scan of customer network
- Standoff SAN Detail diagnoses
- SAN Designer redesigns suitable SAN for customer
- This is how HP services SANs with speedy, suitable, and standoff tools.

Acknowledgements & References

- Acknowledgements
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- References
 - Jeffrey Stai, *The Fibre Channel Bench Reference*, ENDL Publications, Saratoga, CA, 1995.
 - Ralph Thornburgh and Barry Shoenborn, *Storage Area Networks: Designing and Implementing a Mass Storage System*, Hewlett-Packard Professional Books, Prentice-Hall, 2000.
 - Julie Ward, Michael O'Sullivan, Troy Shahoumian, John Wilkes, *Appia: Automatic storage area network fabric design*, File and Storage Conference 2002
 - U.S. Patent and Trademark Office Serial Numbers 09/327,847; 09/707,227; 09/968,437; 10/027,564; 10/058,258; 10/027,589; 10/052,682; 10/066,051