

**Modem Security
Dial-in Demonstration**



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Modem Security Dial-in Demonstration

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Demonstrate the issues that dial-in access raise

Demonstration system:

- Mega Corporation's Sales & Marketing Department's (**Unofficial!**) Intranet Server
- Windows 98 machine running Windows Dial-up Server

(...but it could just as easily be a Unix machine, a telephone exchange, a disk array...)

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*With the tools provided as part of Windows, the existence of “unofficial” departmental intranet servers (configured by a local user) is a far from unusual occurrence.
... But how often have they been implemented with knowledge of best security practice?*

Dial-in Demonstration: Environment

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grc.com

193.237.227.165

Firewall

192.168.1.11

155.152.53.254

192.168.55.1

Modem

Telephone Switch

192.168.55.2

Modem

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Dial-in Demonstration

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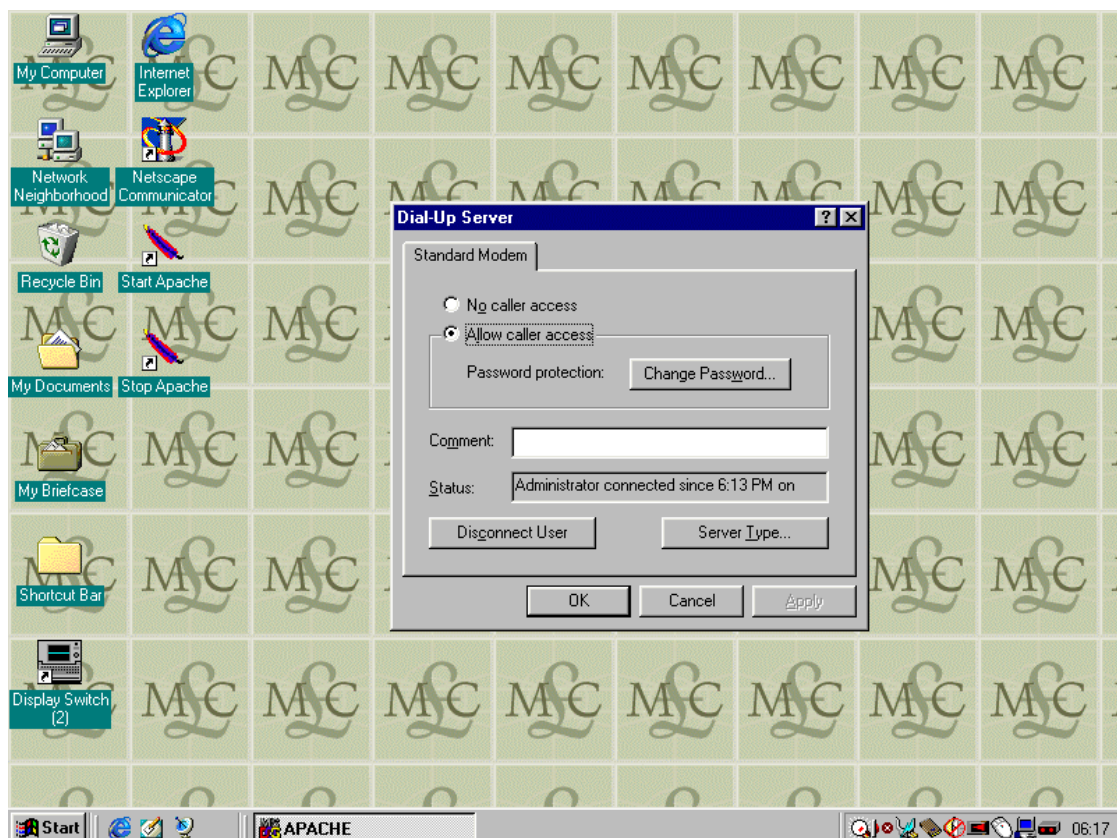
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Dial-inDemonstration

The Mega Corporation (Unofficial) S&M Intranet

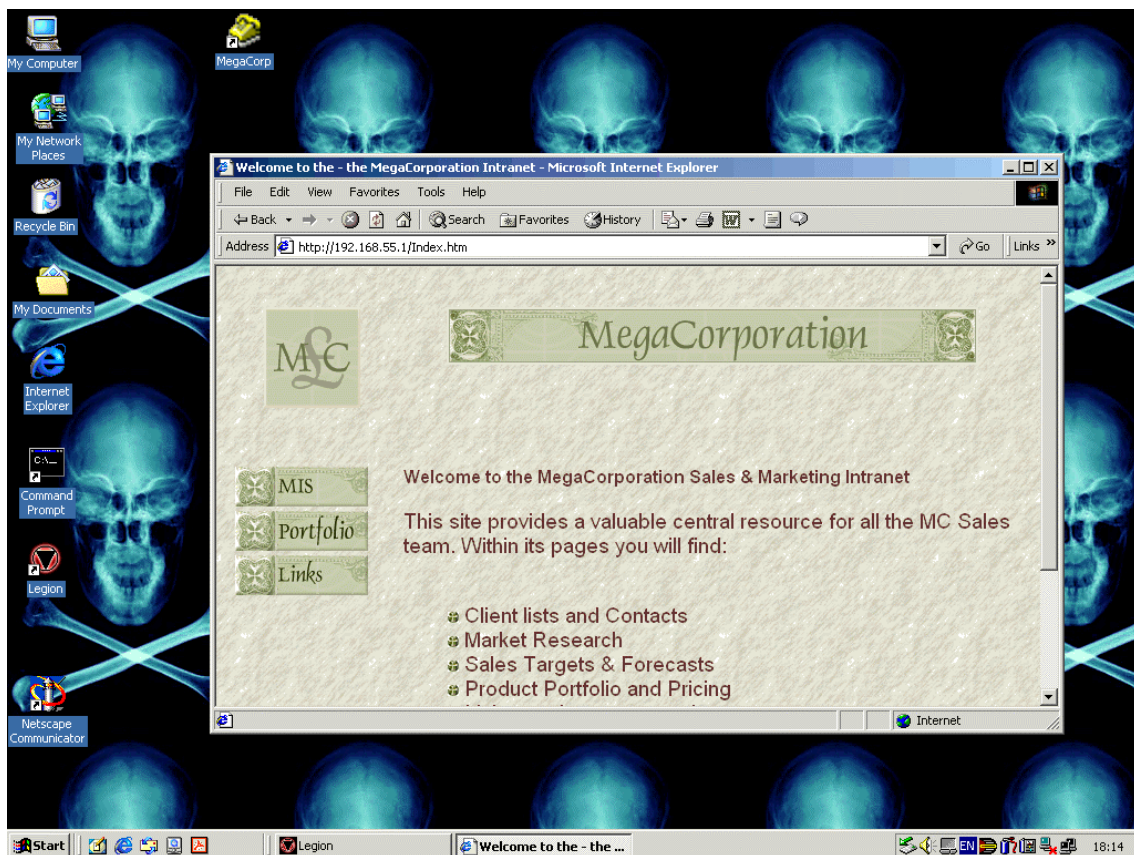


Now running dial-up server – with a connection coming in through a dial-in connection from our hacker...

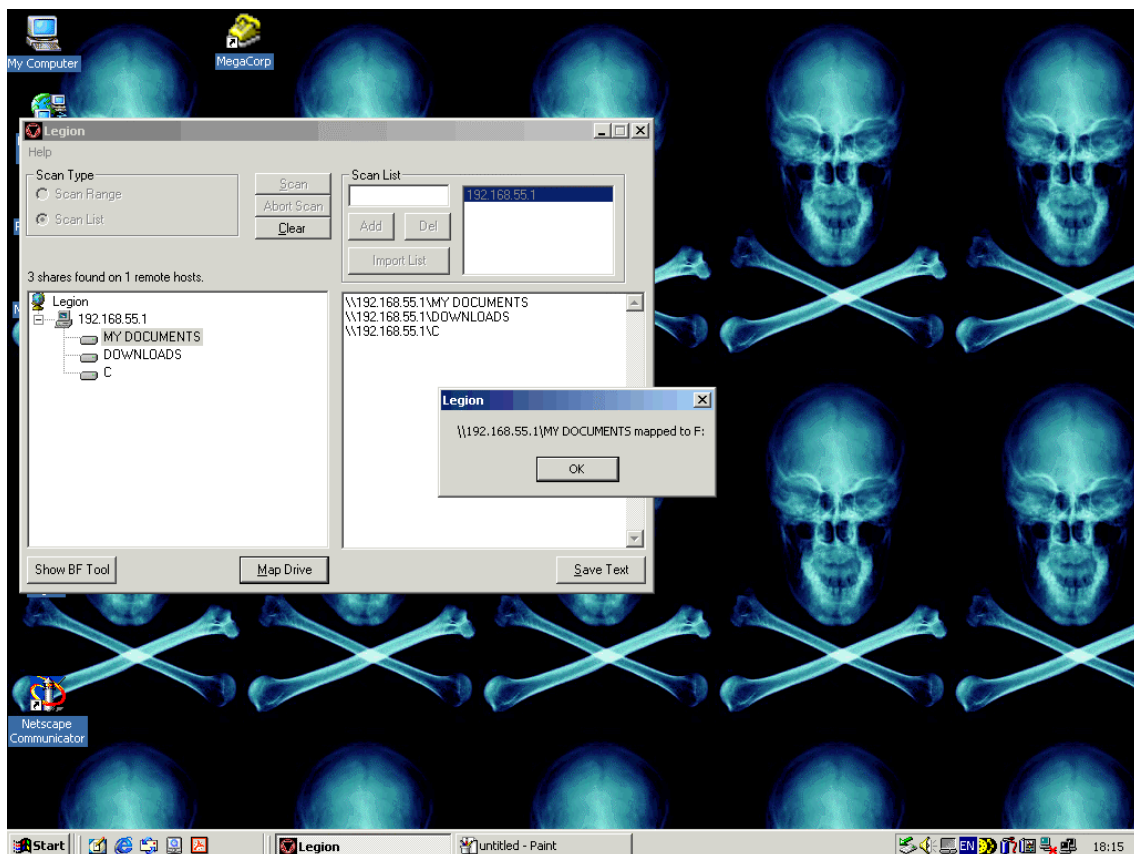


...Now what we can see from the hacker's machine (**solely through the dial-in connection**)

We can view the Mega Corporation website...

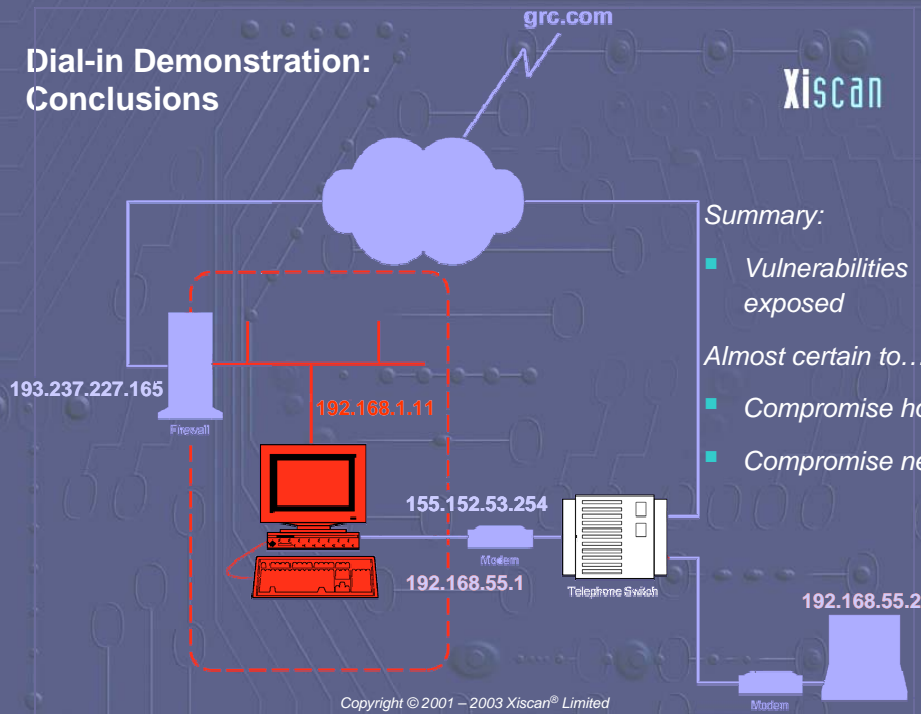


...and we can not only see the shared directories...**we can access them!**



Dial-in Demonstration: Conclusions

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Summary:

- Vulnerabilities exposed

Almost certain to...

- Compromise host
- Compromise network

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Dial-in v. Dial-out Vulnerabilities

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All of the vulnerabilities of dial-out, plus...

- *Planned* rather than *opportunistic* attack
- Easier for a hacker to target an organisation (needs only a telephone number)
- Time to exploit the system
- System can remain compromised after the hacker disconnects
- Likely to be untraceable
- Increased likelihood that this will be a business-critical machine

...And a dial-in attack is not expensive for the hacker

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