WARCS -Wide Area Remote Control for SPring-8

Sunday 14 October 2007 15:00 (30 minutes)

WARCS (Wide Area Remote Control for SPring-8) is a system which allows experts
to access machine control computers from the outside of SPring-8
campus. Computer network for SPring-8 machine control is strictly protected by
firewalls from the internet. When a machine expert get a phone call from the
operation crew at troble, he/she can access computers "making a
tunnel" in the firewall with WARCS system. There are several tunnel tools available in the market,
but we could not find one to meet our requirements. Requirements are as follows. 1.The experts can
access under shift leader's permission. 2. No system access to the gateway
server from outside. 3. Only one server account. 4. Easy operation.
We build our own tunneling tool, WARCS, to satisfy above requests
with combination of linux firewall system (iptables), secure ip tunnel program (Zebedee),
http server (Apache), database program (SQLite) and glue scripts (python).
We build client programs for multi operation system (Windows, Macintosh and
Linux). WARCS deployed at the beginning of 2004. Since the it has been
successfully operated safely.

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