

Corso di Laurea Triennale in Ingegneria e Scienze Informatiche

Tecnologie di Desktop Remoto e il loro Funzionamento

Tesi di laurea in:
RETI DI TELECOMUNICAZIONI

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Abstract

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Contents

Abstract	iii
Introduzione	ix
Evoluzione delle Tecnologie di Desktop Remoto	xi
0.1 Origini prime Tecnologie	xi
0.2 Analisi e Funzionamento delle Principali Tecnologie di Desktop Re- moto	xi
0.2.1 X Window System	xi
0.2.2 Remote Desktop Protocol	xi
0.2.3 Virtual Network Computing	xi
0.2.4	xi
Sviluppi e Applicazioni attuali delle Tecnologie di Desktop Remoto	xiii
0.3 Nuove Esigenze e Utilizzi	xiii
0.4 Protocolli di Desktop Remoto moderni	xiii
0.5 Cloud Gaming e Low-latency Streaming	xiii
0.6	xiii
Prospettive, Sviluppi e Applicazioni futuri del Desktop Remoto	xv
0.7 Desktop as a Service	xv
0.8 Edge Computing	xv
0.9	xv
Conclusioni	xvii
	xix
Bibliography	xix

CONTENTS

Introduzione

Al giorno d'oggi, è sempre più comune incontrare realtà lavorative che offrono la possibilità di lavorare da remoto. La possibilità di connettersi a un computer aziendale da qualsiasi dispositivo connesso a internet comporta numerosi e innegabili vantaggi, come l'accesso diretto alla rete aziendale, l'utilizzo di hardware specifico per alcune attività senza doverlo trasportare fisicamente, e la flessibilità di lavorare da casa o in mobilità. Tutto questo è reso possibile dalle tecnologie di desktop remoto, che permettono di controllare un computer da un altro dispositivo, ovunque esso si trovi, come se ci si trovasse fisicamente davanti ad esso.

Anche nell'industria videoludica le tecnologie di desktop remoto ricoprono un ruolo importante. Il cloud gaming, ad esempio, è un servizio che permette di giocare a videogiochi in streaming, sfruttando la potenza di calcolo di un server remoto. Il colosso tecnologico NVIDIA, uno dei principali attori in questo settore, ha dimostrato fin dal 2013 con il servizio NVIDIA GRID di essere in grado di offrire un'esperienza di gioco fluida e di alta qualità, grazie all'utilizzo di tecnologie di desktop remoto. Ora il servizio è stato ribattezzato GeForce NOW e offre la possibilità di giocare a numerosi titoli di successo, anche su dispositivi mobili. Anche altre aziende come Google, Microsoft e Amazon stanno investendo in questo settore, con servizi come Google Stadia (attualmente chiuso), Xbox Cloud Gaming e Amazon Luna.

L'assistenza remota è un altro campo in cui le tecnologie di desktop remoto hanno avuto un impatto positivo. I tecnici possono ora accedere al computer di un cliente e risolvere problemi senza doversi recare fisicamente sul posto, riducendo i tempi e i costi di intervento, risultando quindi un vantaggio per entrambe le parti.

Questo lavoro di tesi si propone di analizzare le tecnologie di desktop remoto, partendo dalle loro origini e arrivando alle applicazioni attuali e future. Alla base del desktop remoto e di tecnologie simili vi è il concetto di virtualizzazione del desktop. La virtualizzazione del desktop consiste nella separazione dell'ambiente desktop da un dispositivo fisico attraverso un modello client-server. In questo modello, il desktop virtualizzato viene memorizzato su un server remoto centrale e non sul dispositivo dell'utente. L'utente può quindi accedere a file, applicazioni e dati da qualsiasi dispositivo compatibile, come un PC, un tablet o uno smart-

phone. Quando invece di un server centrale si utilizza un altro computer come host, si parla specificamente di desktop remoto. Questa tecnologia consente di gestire e controllare da remoto un computer come se ci si trovasse di fronte ad esso fisicamente.

Le tecnologie di desktop remoto hanno subito notevoli cambiamenti nel corso degli anni, evolvendosi in base alle esigenze emergenti e ai progressi tecnologici. Oggi esistono numerosi protocolli tra cui scegliere, ciascuno con le proprie caratteristiche e peculiarità, rispondendo alle diverse esigenze di utilizzo.

Evoluzione delle Tecnologie di Desktop Remoto

0.1 Origini prime Tecnologie

0.2 Analisi e Funzionamento delle Principali Tecnologie di Desktop Remoto

0.2.1 X Window System

0.2.2 Remote Desktop Protocol

0.2.3 Virtual Network Computing

0.2.4 ...

Sviluppi e Applicazioni attuali delle Tecnologie di Desktop Remoto

0.3 Nuove Esigenze e Utilizzi

0.4 Protocolli di Desktop Remoto moderni

0.5 Cloud Gaming e Low-latency Streaming

0.6 ...

Prospettive, Sviluppi e Applicazioni futuri del Desktop Remoto

0.7 Desktop as a Service

0.8 Edge Computing

0.9 ...

Conclusioni

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Acknowledgements

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