



Evaluating Resiliency and Performance of Networked Satellite Systems

Evaluierung der Resilienz und Leistung von Netzwerk
Satelliten Systemen

Robert Alexander Uwe Richter

Universitätsmasterarbeit
zur Erlangung des akademischen Grades

Master of Science
(M. Sc.)

im Studiengang
IT Systems Engineering

eingereicht am 30. September 2024 am
Fachgebiet Data-Intensive Internet Computing der
Digital-Engineering-Fakultät
der Universität Potsdam

Gutachter

Prof. Dr. Vaibhav Bajpai

Betreuer

A Postdoc

A PhD student

Abstract

Acknowledgments

Contents

Abstract	iii
Acknowledgments	v
Contents	vii
1 Introduction	1
I Networking Technologies	3
2 Traditional Networking Technologies	5
3 Satellite Communication	7
3.1 Olds ones	7
3.2 Starlink	7
4 Conclusions & Outlook	9
Bibliography	11
Declaration of Authorship	13



Part I

Networking Technologies

2

Traditional Network- ing Technologies

3

Satellite Communication

3.1 Olds ones

3.2 Starlink

4

Conclusions & Outlook

Bibliography

Declaration of Authorship

I hereby declare that this thesis is my own unaided work. All direct or indirect sources used are acknowledged as references.

Potsdam, July 15, 2024

Robert Alexander Uwe Richter