

# Electronic Supplementary Information

## CTJIF-ICN: A Coadjuvant Trust Joint Interest Forwarding Mechanism in Information Centric Networks

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### Appendix 1

**Table 1.** Comparative analysis for state-of-the-art approaches

Reference	Year	Security assurance through cryptographic approaches	Security assurance through trust-based approaches	Addresses computational overhead	Addresses communication overhead	Addresses storage overhead	Resists internal attacks	Detection of malicious nodes
[10]	2019	Yes	No	No	No	No	Yes	No
[11]	2019	Yes	No	No	No	Yes	Yes	No
[12]	2018	Yes	No	No	Yes	No	Yes	No
[13]	2018	Yes	No	No	No	No	Yes	No
[14]	2017	Yes	No	No	No	No	Yes	Yes
[15]	2019	Yes	No	No	No	Yes	Yes	No
[16]	2021	Yes	No	No	No	Yes	No	No
[17]	2020	Yes	No	No	No	No	No	No
[18]	2020	No	Yes	Yes	No	No	No	Yes
[19]	2019	No	Yes	Yes	Yes	Yes	No	No
[20]	2020	No	Yes	Yes	Yes	Yes	No	Yes
[21]	2023	No	Yes	Yes	No	No	No	Yes
[22]	2022	No	Yes	No	Yes	No	Yes	No
[23]	2023	No	Yes	Yes	No	Yes	No	No
[24]	2022	No	Yes	No	Yes	Yes	No	No
[25]	2023	No	Yes	No	Yes	No	No	Yes
[26]	2020	No	No	Yes	No	No	No	No
[27]	2021	No	No	No	Yes	No	Yes	No
[28]	2021	No	No	No	No	No	Yes	No
CTJIF-ICN	2024	No	Yes	Yes	Yes	Yes	Yes	Yes

**Table 2.** Abbreviations for the terms used in proposed work

<b>Abbreviation</b>	<b>Full form</b>
CS	Content store
IRM	Independent reference model
CR	Content router
TF	Trust factor
IPFR	Interest packet forwarding ratio
DPFR	Data packet forwarding ratio
PIT	Pending interest table
HTF	Historical trust factor
PFR	Packet forwarding ratio
Ipacket	Interest packet
DPacket	Data packet

**Table 6.** State-of-the-art mechanisms with and without inclusion of CTJIF-ICN

<b>Abbreviation</b>	<b>Full form</b>
LCD	Leave Copy Down
LCE	Leave Copy Everywhere
CL4M	Cache Less For More
ProbCache	Probabilistic Caching
LCD+CTJIF-ICN	Leave Copy Down + coadjuvant trust joint interest forwarding mechanism in information centric networks
LCE+CTJIF-ICN	Leave Copy Everywhere + coadjuvant trust joint interest forwarding mechanism in information centric networks
CL4M+CTJIF-ICN	Cache Less For More + coadjuvant trust joint interest forwarding mechanism in information centric networks
Probcache+CTJIF-ICN	Probabilistic Caching + coadjuvant trust joint interest forwarding mechanism in information centric networks
Co-operative forwarding+CTJIF-ICN	Co-operative forwarding + coadjuvant trust joint interest forwarding mechanism in information centric networks
Multipath forwarding+CTJIF-ICN	Multipath forwarding + coadjuvant trust joint interest forwarding mechanism in information centric networks