

LIST OF SYMBOLS

$w(p)$	-	Bandwidth Aware Metric
$FBW(p)$	-	Bandwidth of the first link
$B(s,d)$	-	Bandwidth of the link from source s to destination d
$HBW(p)$	-	Bandwidth of the sub path composed of the first three links
$TBW(p)$	-	Bandwidth of the sub path composed of the first two links
$WBW(p)$	-	Bandwidth of the whole path
$R_{m:n}$	-	Base rate of m 's trust on node n
K_{MCj}	-	Card key of Mesh Client j
K_{MRj}	-	Card key of Mesh Router j
$Cert_{TA}$	-	Certificate of Trusted Authority
α^{TA}	-	Domain secret of Trusted Authority
G_i	-	Elliptic Curve Groups
$E_{pk}(x)$	-	Encryption with private key
$[]K_{MCMC}$	-	Encryption with shared key between two MCs
$F(O_{m:n})$	-	Final Trust Metric
d_f	-	Forward Packet Delivery Ratio
R	-	Generator of Group G
H^{TA}	-	Hash function of Trusted Authority
$LQ_{m \rightarrow n}$	-	Link quality metric from node m to node n
\bar{K}_{x^*}	-	Local Broadcast key of Node x
TAG_{MC}	-	MC's Tag
$()K_{MC}$	-	Message digitally signed by MC's Private Key
TAG_{MR}	-	MR's Tag
$D_{m:n}$	-	Node m 's distrust on node n

$T_{m:n}$	- Node m's trust on node n
$U_{m:n}$	- Node m's uncertainty on node n
α	- Normalizing Factor
$NF_{m \rightarrow n}$	- Number of packets received from node m and node n has not forwarded
$ST_{m \rightarrow n}$	- Number of packets received from node m and node n has successfully forwarded
K_{IDS}	- Private Identity based Key of Node S
K_{CA}	- Private key of CA
Nym_S	- Pseudonym
$PK_{M/C}$	- Public Key of MR/Client
N_s	- Random Number
d_r	- Reverse Packet Delivery Ratio
R_S	- Route Pseudonym
$MC_j\text{-card}$	- Security Card for Mesh Client j
$MR_j\text{-card}$	- Security Card for Mesh Router j
K_{CAMC}	- Shared Secret key between CA and MC
K_{CAMR}	- Shared Secret key between CA and MR
K_{SIj}	- Shared Session Key between S and Ij
SIG	- Signature
$H_i(*)$	- Three levels of secure one way hash functions with $i=1, 2$ and 3.
θ	- Threshold Parameter
$TOK_{MR/MC}$	- Token of MR/MC
$NT_{m \rightarrow n}$	- Total number of packet transmissions received from node m
β	- Tunable Parameter
MC_j	- Unique identifier of Mesh Client j
MR_j	- Unique identifier of Mesh Router j