

ct_p :	The unit cost of flow on path p , $ct_p \geq 0$;
H_p :	The hop number of path p , $H_p \geq 1$;
cn_s :	The unit cost of computing resources at physical node s , $cn_s \geq 0$;
ψ	The set of all the paths for the model;
ψ^c	The set of paths for virtual link c ;
ψ_s^c	The set of paths for virtual link c that consists of physical nodes all with cryptography capability;
cr_V	The computing capacity requirement of each virtual node V ;
βr_c	The bandwidth requirement of virtual link c ;
βc_x :	The bandwidth capacity of physical link x ;
nc_i :	The number of cryptography instances that physical node i can support;
$\alpha_{p, (V, s)}$	1 if auxiliary link (V, s) is on the path p , and 0 otherwise;
$\theta_{p, i}$	1 if node i is contained in path p , and 0 otherwise;
ct_L :	The cost of selected link security plan;
ct_L^c :	The cost of selected link security plan for virtual link c ;
ct_{ED} :	The cost per cryptography instance;
AL :	The set of auxiliary links;
D_V :	The node degree of virtual node V in the virtual network;
T_V :	The summation of the bandwidth requirements of all incident virtual links of virtual node V .