=== Run information ===

Scheme: weka.classifiers.bayes.BayesNet -D -Q weka.classifiers.bayes.net.search.local.K2 -- -P 2 -N -S BAYES -E weka.classifiers.bayes.net.estimate.SimpleEstimator -- -A 0.5

Relation: binNomified

Instances: 14996

Attributes: 38

is\_attack

P101

P203

P205

P301

P401

P601

MV301

MV302

MV304

UV401

MV101

MV201

MV303

FIT101

LIT101

AIT202

AIT203

FIT201

DPIT301

FIT301

LIT301

AIT402

FIT401

LIT401

AIT501

AIT502

AIT503

AIT504

FIT501

FIT502

FIT503

FIT504

PIT501

PIT502

PIT503

FIT601

AIT201

Test mode: 10-fold cross-validation

=== Classifier model (full training set) ===

Bayes Network Classifier

not using ADTree

#attributes=38 #classindex=0

Network structure (nodes followed by parents)

is\_attack(2):

P101(2): is\_attack

P203(2): P101 is\_attack

P205(2): P203

P301(2): P101 P203

P401(2):

P601(2): P203 P301

MV301(3): P301

MV302(3): P301 P101

MV304(3): MV302 P301

UV401(2): P301 P101

MV101(3): MV302 P203

MV201(3): P101 P203

MV303(3): MV304 MV301

FIT101(2): MV101 is\_attack

LIT101(2): P203 MV101

AIT202(2): is\_attack MV302

AIT203(2): AIT202 MV201

FIT201(2): P203 MV302

DPIT301(2): P301 is\_attack

FIT301(2): P301 MV201

LIT301(2): is\_attack FIT201

AIT402(2): LIT301 is\_attack

FIT401(2): AIT402 UV401

LIT401(2): AIT202 is\_attack

AIT501(2): AIT402 UV401

AIT502(2): AIT402 DPIT301

AIT503(2): MV101 AIT501

AIT504(2): AIT502 MV302

FIT501(2): AIT501 FIT401

FIT502(2): AIT501 AIT402

FIT503(2): AIT402 AIT502

FIT504(2): FIT501 FIT503

PIT501(2): AIT501 FIT503

PIT502(2): AIT402 MV302

PIT503(2): PIT501 AIT503

FIT601(2): P203 MV101

AIT201(2): AIT402 P301

LogScore Bayes: -141970.31879958583

LogScore BDeu: -142362.81585600943

LogScore MDL: -142655.86464815986

LogScore ENTROPY: -141694.31077037426

LogScore AIC: -141894.31077037426

Time taken to build model: 0.51 seconds

=== Stratified cross-validation ===

=== Summary ===

Correctly Classified Instances 13656 91.0643 %

Incorrectly Classified Instances 1340 8.9357 %

Kappa statistic 0.5483

Mean absolute error 0.1211

Root mean squared error 0.2491

Relative absolute error 54.0608 %

Root relative squared error 74.4556 %

Total Number of Instances 14996

=== Detailed Accuracy By Class ===

TP Rate FP Rate Precision Recall F-Measure MCC ROC Area PRC Area Class

0.969 0.484 0.931 0.969 0.950 0.557 0.941 0.991 zero

0.516 0.031 0.709 0.516 0.597 0.557 0.941 0.734 one

Weighted Avg. 0.911 0.426 0.903 0.911 0.904 0.557 0.941 0.958

=== Confusion Matrix ===

a b <-- classified as

12663 407 | a = zero

933 993 | b = one