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RT305X NAT PERFORMANCE APPLICATION NOTE

1 INTRODUCTION

This application note (AN) specifies how to improve Network Address Translation (NAT) performance.

2 SCOPE

This application note (AN) is concerned with the NAT performance. Other issues that are not the same as the NAT performance issue are not identified in this AN.

3 DESCRIPTION

The new Ethernet driver enables TX/RX checksum offload for TCP/UDP/IP flow. A bi-directional NAT improves performance around 15%. Please ask your FAE for the improved driver. The driver includes the complete source code, and makes sure all settings are correct.

```
<*> Ralink GMAC
[ ]   Use Rx Polling (NAPI)
[*]   TCP/UDP/IP checksum offload
[ ]   QoS Feature
GMAC is connected to (RT3052 Embedded Switch)  --->
--- LAN/WAN Partition
Board Layout Type (W/LLLL)  --->
```

4 CONCLUSION

Enabling the TCP/UDP/IP checksum offload improves the NAT performance. No side effects have been found so far. We strongly recommended enabling the TCP/UDP/IP checksum offload feature, for the benefits explained in this document.