



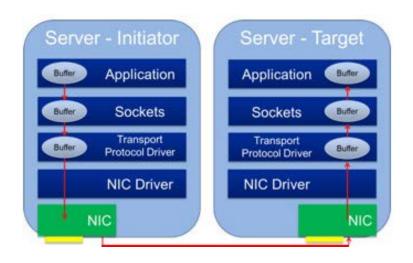
Winning with RDMA

刘通

HPC Advisory Council Asia Chair

TCP vs RDMA

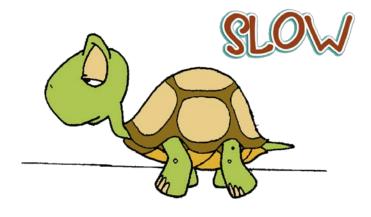




Network Protocol Impacts System Performance



TCP



RDMA



Interconnect with RDMA Enabled





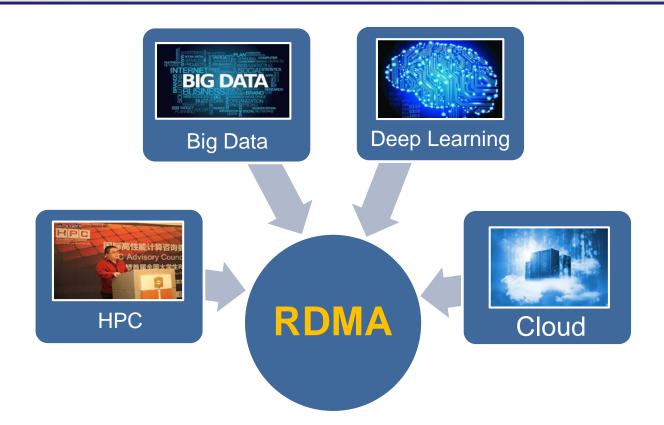
InfiniBand 40G/56G/100G

Ethernet 10G/25G/40G/50G/100G

Both are industry standard technology

RDMA Becomes Critical to Data Era





Blogging from Baidu



【技术贴】RDMA高性能网络喊你来体验

术 网络

百度东莞分公司·2016-02-22 20:33



介绍

随着数据的爆炸式增长,各个领域对计算机硬件的处理能力有了更高的要求。相比于CPU和GPU等计算设备的 快速发展,传统的以太网领域发展明显滞后并逐渐成为性能瓶颈。大量产品线都希望改善网络性能,通过使用更高 带宽,更低延迟的网络来提升业务能力。

http://www.wtoutiao.com/p/114sa0X.html

3.为基础服务加速。由于RDMA网络和传统数据中心的完美融合,今后会逐渐推广至公司的各项业务中,为各项基础网络服务加速。当然,系统部的研发同学也会提供使用更方便的网络接口为各项业务服务。

The 4th Student RDMA Programming Competition





支持机构

深度学习应用:







深度学习平台:

















Deep Learning is Changing the World



Competition Task: TensorFlow



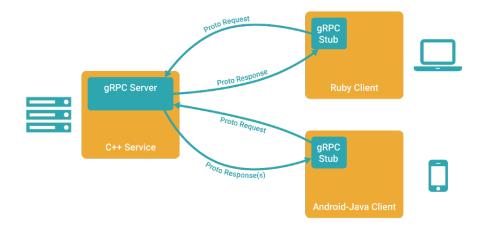
- Open source software library for deep learning
- Developed by Google



How RDMA Accelerate it?



- Distributed TensorFlow
- Powered by gRPC
 - A language-neutral, platform-neutral, open source, remote procedure call (RPC) system initially developed at Google



The 4rd Student RDMA Programming Competition



- Starts from May 18st
- Opens to all universities in Asia
 - 55 teams joined
- Increased the prize for winners
 - 2 First prize:
 - 20000RMB for each
 - 2 Second prize:
 - 10000RMB for each
 - 4 Third prize:
 - 5000RMB for each

2016 RDMA Competition Award Ceremony

- Nanjing University (南京大学)
 - > Team: 周磊 王之 邱昊楠 张雪薇
 - > Advisor: 王晓亮





- Ocean University of China (中国海洋大学)
 - > Team: 王晨涛 赵颖祺 陈玉虎 刘伊丽 张枫茗
 - > Advisor: 张临杰





- Xidian University (西安电子科技大学)
 - > Team: 石维康 马振鑫 王琛超 王惺
 - > Advisor: 苗启广



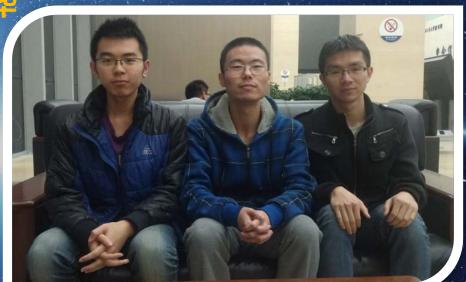


• Northwestern Polytechnical University (西北工业大学)

> Team: 巫健 芦尚奇 胡英谦

> Advisor: 谷建华





• Xidian University (西安电子科技大学)

> Team: 陶琳湖 张睿 苗凯彬

> Advisor: 权义宁





- University of Science and Technology of China (中国科学技术大学)
 - > Team: 郏乘帆 金旭 刘君楠 徐青青 冯思危
 - > Advisor: 安虹

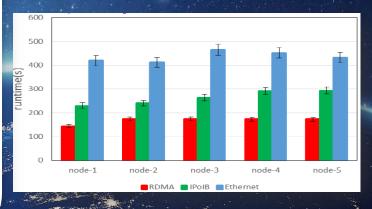




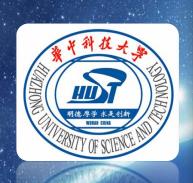
- National University of Defense Technology (国防科学技术大学)
 - > Team: 余松平 王元波 曾建强 李娟 朱凌宇
 - > Advisor: 肖侬



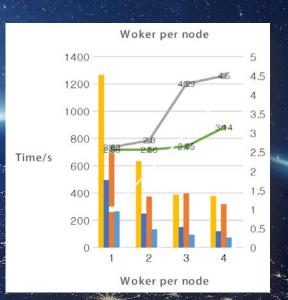




- Huazhong University of Science & Technology - (华中科技大学)
 - > Team: 刘钟泽 李开希 贺逸飞 郭映中 李恺杰
 - > Advisor: 石宣化







RDMA Competition 2017





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