Challenges in Common

共同面临的挑战

From small trading firms to big banks and exchanges, financial

industry players are looking at the success of Facebook and Amazon

for ideas on how to improve speed of delivery in IT, how to innovate

faster, how to reduce operations costs, and how to solve online scaling

problems.

从小型交易公司到大型银行和交易所，金融业内人士正在关注Facebook和Amazon的成功，看它们是如何提高IT交付速度、如何更快创如何降低运营成本，以及如何解决在线扩展问题。

Financial services, cloud services providers, and other Internet tech

companies share many common technology and business challenges.

They all deal with problems of scale. They run farms of thousands

or tens of thousands of servers, and thousands of applications. No

bank—even the biggest too-big-to-fail bank—can compete with the

number of users that an online company like Facebook or Twitter

supports. On the other hand, the volume and value of transactions

that a major stock exchange or clearinghouse handles in a trading

day dwarfs that of online sites like Amazon or Etsy. While Netflix

deals with massive amounts of streaming video traffic, financial

trading firms must be able to keep up with streaming low-latency

market data feeds that can peak at several millions of messages per

second, where nanosecond precision is necessary.

金融服务、云服务提供商和其他互联网技术公司面临许多共同的技术和业务挑战。他们都需要处理规模化问题。他们经营着数千台或者数万台服务器，以及数千个应用程序。银行，即使是最大的大到不能倒闭的银行，也不能支持与Facebook或Twitter这样的在线公司的用户数量。另一方面，一家主要的证券交易所或清算所一个交易日所处理的交易量和交易价值让亚马逊或Etsy等在线网站相形见绌。当Netflix处理大量的流媒体视频流量，财务交易公司必须能够跟上低延迟的市场行情数据源，其峰值可能为每秒数百万条消息，而且精度在纳秒级。

 These Big Data worlds are coming closer together, as more financial firms such as Morgan Stanley, Credit Suisse, and Bank of America adopt data analytics platforms like Hadoop. Google, in partnership with SunGard, was one of the shortlisted providers bidding on the Securities and Exchange Commission’s (SEC’s) new Consolidated Audit Trail (CAT), a massively scaled surveillance and reporting platform that will record every order, quote, and trade in the US

equities and equities options markets. CAT will be one of the world’s largest data warehouses, handling more than 50 billion records per day from over 2,000 trading firms and exchanges.

随着越来越多的金融机构，如摩根士丹利、瑞士信贷和美国银行等公司采用Hadoop等数据分析平台，大数据的世界越来越近了。谷歌与其合作伙伴金仕达组成的联合体，是少数正在竞标证券交易委员会（SEC）新的 审计跟踪系统（CAT）的供应商。CAT系统是大规模的监督和报告平台， 将记录美国票和股票期权市场上的每个订单、报价和交易。CAT将成为世界上最大的数据仓库，处理来自2000多家交易公司和交易所每天超过500亿条的记录。

The financial services industry, like the online tech world, is

viciously competitive, and there is a premium on continuous growth

and meeting short-term quarterly targets. Businesses (and IT) are

under constantly increasing pressure to deliver new services faster,

and with greater efficiency—but not at the expense of reliability of

service or security. Financial services can look to DevOps for ways

to introduce new products and services faster, but at the same time

they need to work within constraints to meet strict uptime and per‐formance service-level agreements (SLAs) and compliance and governance requirements.

金融服务业，就像互联网技行业，竞争异常激烈，持续增长并实现短期季度目标非常重要。企业（和IT）受到持续不断加压的业绩要求，需要更快提供新、效率更高的服务，，但不以牺牲可靠性服务或安全为代价。金融服务业可以通过DevOps找到更快推出新产品和服务的方法，但与此同时他们需要在限制范围内工作，以满足严格的正常运行时间和性能服务级别协议（SLA）以及合规和治理要求。