

# Nginx 中文官方 文档

飞龙



# 主要文档

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## Nginx功能概述

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### Nginx功能概述

#### HTTP基础功能：

- 处理静态文件，索引文件以及自动索引；
- 反向代理加速(无缓存)，简单的负载均衡和容错；
- FastCGI，简单的负载均衡和容错；
- 模块化的结构。过滤器包括gzipping, byte ranges, chunked responses, 以及 SSI-filter。在SSI过滤器中，到同一个 proxy 或者 FastCGI 的多个子请求并发处理；
- SSL 和 TLS SNI 支持；

#### IMAP/POP3 代理服务功能：

- 使用外部 HTTP 认证服务器重定向用户到 IMAP/POP3 后端；
- 使用外部 HTTP 认证服务器认证用户后连接重定向到内部的 SMTP 后端；
- 认证方法：
- POP3: POP3 USER/PASS, APOP, AUTH LOGIN PLAIN CRAM-MD5;
- IMAP: IMAP LOGIN;
- SMTP: AUTH LOGIN PLAIN CRAM-MD5;
- SSL 支持；
- 在 IMAP 和 POP3 模式下的 STARTTLS 和 STLS 支持；

#### 支持的操作系统：

- FreeBSD 3.x, 4.x, 5.x, 6.x i386; FreeBSD 5.x, 6.x amd64;
- Linux 2.2, 2.4, 2.6 i386; Linux 2.6 amd64;
- Solaris 8 i386; Solaris 9 i386 and sun4u; Solaris 10 i386;
- MacOS X (10.4) PPC;

#### 结构与扩展：

- 一个主进程和多个工作进程。工作进程是单线程的，且不需要特殊授权即可运行；
- kqueue (FreeBSD 4.1+), epoll (Linux 2.6+), rt signals (Linux 2.2.19+), /dev/poll (Solaris 7 11/99+), select, 以及 poll 支持；
- kqueue支持的不同功能包括 EV\_CLEAR, EV\_DISABLE（临时禁止事件），NOTE\_LOWAT, EV\_EOF,

有效数据的数目，错误代码；

- sendfile (FreeBSD 3.1+), sendfile (Linux 2.2+), sendfile64 (Linux 2.4.21+), 和 sendfilev (Solaris 8 7/01+) 支持；
- 输入过滤 (FreeBSD 4.1+) 以及 TCP\_DEFER\_ACCEPT (Linux 2.4+) 支持；
- 10,000 非活动的 HTTP keep-alive 连接仅需要 2.5M 内存。
- 最小化的数据拷贝操作；

#### 其他HTTP功能：

- 基于IP 和名称的虚拟主机服务；
- Memcached 的 GET 接口；
- 支持 keep-alive 和管道连接；
- 灵活简单的配置；
- 重新配置和在线升级而无须中断客户的工作进程；
- 可定制的访问日志，日志写入缓存，以及快捷的日志回卷；
- 4xx-5xx 错误代码重定向；
- 基于 PCRE 的 rewrite 重写模块；
- 基于客户端 IP 地址和 HTTP 基本认证的访问控制；
- PUT, DELETE, 和 MKCOL 方法；
- 支持 FLV (Flash 视频)；
- 带宽限制；

#### 实验特性：

- 内嵌的 perl
- 通过 aio\_read() / aio\_write() 的套接字工作的实验模块，仅在 FreeBSD 下。
- 对线程的实验化支持，FreeBSD 4.x 的实现基于 rfork()

Nginx 主要的英语站点是 <http://sysoev.ru/en/>

英语文档草稿由 Aleksandar Lazic 完成 [点击](#)。

## 为什么选择Nginx

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### 为什么选择Nginx

Nginx 是一个高性能的 Web 和反向代理服务器, 它具有有很多非常优越的特性:

**作为 Web 服务器：**相比 Apache，Nginx 使用更少的资源，支持更多的并发连接，体现更高的效率，这点使 Nginx 尤其受到虚拟主机提供商的欢迎。能够支持高达 50,000 个并发连接数的响应，感谢 Nginx 为我们选择了 epoll and kqueue 作为开发模型。

**作为负载均衡服务器**：Nginx 既可以在内部直接支持 Rails 和 PHP，也可以支持作为 HTTP代理服务器 对外进行服务。Nginx 用 C 编写, 不论是系统资源开销还是 CPU 使用效率都比 Perlbal 要好的多。

**作为邮件代理服务器**: Nginx 同时也是一个非常优秀的邮件代理服务器（最早开发这个产品的目的之一也是作为邮件代理服务器），Last.fm 描述了成功并且美妙的使用经验。

**Nginx 安装非常的简单，配置文件 非常简洁（还能够支持perl语法），Bugs非常少的服务器**: Nginx 启动特别容易，并且几乎可以做到7\*24不间断运行，即使运行数个月也不需要重新启动。你还能够在 不间断服务的情况下进行软件版本的升级。

# Nginx安装

## Nginx安装

nginx可以使用各平台的默认包来安装，本文是介绍使用源码编译安装，包括具体的编译参数信息。

正式开始前，编译环境gcc g++ 开发库之类的需要提前装好，这里默认你已经装好。

ububtu平台编译环境可以使用以下指令

```
apt-get install build-essential  
apt-get install libtool
```

centos平台编译环境使用如下指令

安装make：

```
yum -y install gcc automake autoconf libtool make
```

安装g++:

```
yum install gcc gcc-c++
```

下面正式开始

一般我们都需要先装pcre, zlib，前者为了重写rewrite，后者为了gzip压缩。

### 1.选定源码目录

可以是任何目录，本文选定的是/usr/local/src

```
cd /usr/local/src
```

## 2.安装PCRE库

<ftp://ftp.csx.cam.ac.uk/pub/software/programming/pcre/> 下载最新的 PCRE 源码包，使用下面命令下载编译和安装 PCRE 包：

```
cd /usr/local/src
wget ftp://ftp.csx.cam.ac.uk/pub/software/programming/pcre/pcre-8.34.tar.gz
tar -zxvf pcre-8.34.tar.gz
cd pcre-8.34
./configure
make
make install
```

## 3.安装zlib库

<http://zlib.net/zlib-1.2.8.tar.gz> 下载最新的 zlib 源码包，使用下面命令下载编译和安装 zlib包：

```
cd /usr/local/src

wget http://zlib.net/zlib-1.2.8.tar.gz
tar -zxvf zlib-1.2.8.tar.gz
cd zlib-1.2.8
./configure
make
make install
```

## 4.安装ssl (某些vps默认没装ssl)

```
cd /usr/local/src
wget http://www.openssl.org/source/openssl-1.0.1c.tar.gz
tar -zxvf openssl-1.0.1c.tar.gz
```

## 5.安装nginx

Nginx 一般有两个版本，分别是稳定版和开发版，您可以根据您的目的来选择这两个版本的其中一个，下面是把 Nginx 安装到 /usr/local/nginx 目录下的详细步骤：

```
cd /usr/local/src
wget http://nginx.org/download/nginx-1.4.2.tar.gz
tar -zxvf nginx-1.4.2.tar.gz
cd nginx-1.4.2
```

```
./configure --sbin-path=/usr/local/nginx/nginx \
--conf-path=/usr/local/nginx/nginx.conf \
--pid-path=/usr/local/nginx/nginx.pid \
--with-http_ssl_module \
--with-pcre=/usr/local/src/pcre-8.34 \
--with-zlib=/usr/local/src/zlib-1.2.8 \
--with-openssl=/usr/local/src/openssl-1.0.1c
```

```
make
make install
```

--with-pcre=/usr/src/pcre-8.34 指的是pcre-8.34 的源码路径。

--with-zlib=/usr/src/zlib-1.2.7 指的是zlib-1.2.7 的源码路径。

安装成功后 /usr/local/nginx 目录下如下

```
fastcgi.conf      koi-win          nginx.conf.default
fastcgi.conf.default  logs            scgi_params
fastcgi_params    mime.types       scgi_params.default
fastcgi_params.default mime.types.default uwsgi_params
html              nginx            uwsgi_params.default
koi-utf           nginx.conf       win-utf
```

## 6.启动

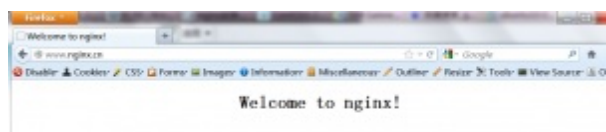
确保系统的 80 端口没被其他程序占用，运行/usr/local/nginx/nginx 命令来启动 Nginx ，

```
netstat -ano|grep 80
```

如果查不到结果后执行，有结果则忽略此步骤（ubuntu下必须用sudo启动，不然只能在前台运行）

```
sudo /usr/local/nginx/nginx
```

打开浏览器访问此机器的 IP，如果浏览器出现 Welcome to nginx! 则表示 Nginx 已经安装并运行成功。



到这里nginx就安装完成了，如果只是处理静态html就不用继续安装了

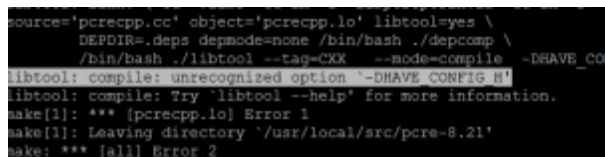
如果你需要处理php脚本的话，还需要[安装php-fpm](#)。

下面安装排错

附：可能遇到的错误和一些帮助信息

## 1.1 编译pcre错误

```
libtool: compile: unrecognized option `-DHAVE_CONFIG_H'  
libtool: compile: Try `libtool --help' for more information.  
make[1]: *** [pcrecpp.lo] Error 1  
make[1]: Leaving directory `/usr/local/src/pcre-8.34'  
make: *** [all] Error 2
```



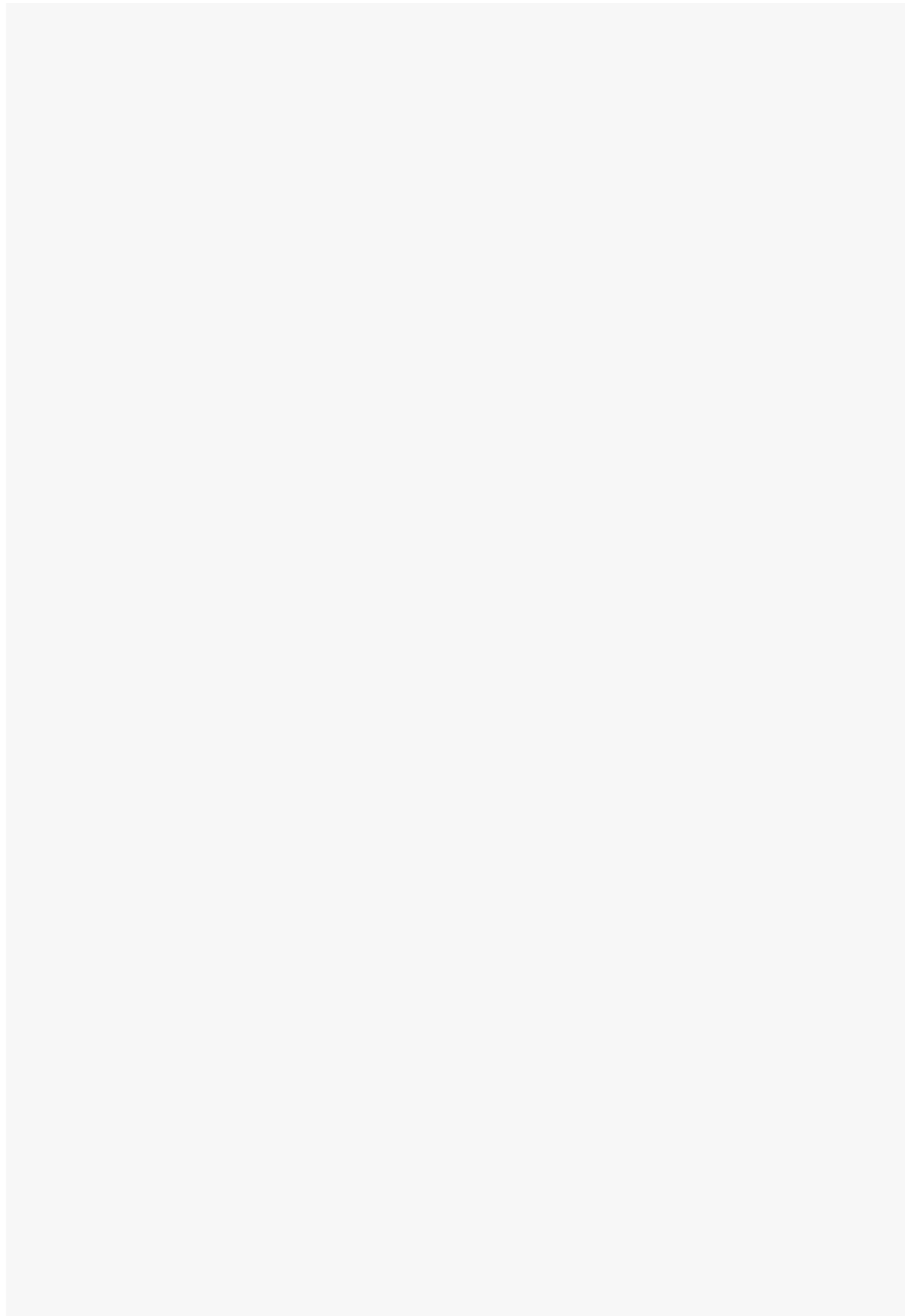
```
source='pcrecpp.cc' object='pcrecpp.lo' libtool=yes \  
DEPDIR=.deps depmode=none /bin/bash ./depcomp \  
/bin/bash ./libtool --tag=CXX --mode=compile -DHAVE_CO  
libtool: compile: unrecognized option -DHAVE_CONFIG_H  
libtool: compile: Try `libtool --help' for more information.  
make[1]: *** [pcrecpp.lo] Error 1  
make[1]: Leaving directory `/usr/local/src/pcre-8.21'  
make: *** [all] Error 2
```

解决办法：安装g++，别忘了重新configure

```
apt-get install g++  
apt-get install build-essential  
make clean  
./configure  
make
```

## 1.2 make出错

```
make: *** No rule to make target `build', needed by `default'. Stop.  
./configure: error: SSL modules require the OpenSSL library.  
You can either do not enable the modules, or install the OpenSSL library  
into the system, or build the OpenSSL library statically from the source  
with nginx by using --with-openssl=
```





```
option.
```

按照第4步的安装方法或

ubuntu下

```
apt-get install openssl  
apt-get install libssl-dev
```

centos下

```
yum -y install openssl openssl-devel
```

## 2.nginx编译选项

make是用来编译的，它从Makefile中读取指令，然后编译。

make install是用来安装的，它也从Makefile中读取指令，安装到指定的位置。

configure命令是用来检测你的安装平台的目标特征的。它定义了系统的各个方面，包括nginx的被允许使用的连接处理的方法，比如它会检测你是不是有CC或GCC，并不是需要CC或GCC，它是个shell脚本，执行结束时，它会创建一个Makefile文件。nginx的configure命令支持以下参数：

- `--prefix`  
= `path` 定义一个目录，存放服务器上的文件，也就是nginx的安装目录。默认使用 `/usr/local/nginx`。
- `--sbin-path= path` 设置nginx的可执行文件的路径，默认为 `*prefix*/sbin/nginx``。
- `--conf-path= path` 设置在nginx.conf配置文件的路径。nginx允许使用不同的配置文件启动，通过命令行中的-c选项。默认为 `*prefix*/conf/nginx.conf``。
- `--pid-path= path` 设置nginx.pid文件，将存储的主进程的进程号。安装完成后，可以随时改变的文件名，在nginx.conf配置文件中使用的PID指令。默认情况下，文件名为 `*prefix*/logs/nginx.pid``。
- `--error-log-path= path` 设置主错误，警告，和诊断文件的名称。安装完成后，可以随时改变的文件名，在nginx.conf配置文件中使用的error\_log指令。默认情况下，文件名为 `*prefix*/logs/error.log``。
- `--http-log-path= path` 设置主请求的HTTP服务器的日志文件的名称。安装完成后，可以随时改变的文件名，在nginx.conf配置文件中使用的access\_log指令。默认情况下，文件名为 `*prefix*/logs/access.log``。
- `--user`  
= `name` 设置nginx工作进程的用户。安装完成后，可以随时更改的名称在nginx.conf配置文件中使用的user指令。默认的用户名是nobody。
- `--group= name` 设置nginx工作进程的用户组。安装完成后，可以随时更改的名称在nginx.conf配置文件中使用的user指令。默认为非特权用户。
- `--with-select_module`--without-select_module` 启用或禁用构建一个模块来允许服务器使用select
- `--with-poll_module`--without-poll_module` 启用或禁用构建一个模块来允许服务器使用poll()方法。该模块将自动建立，如果平台不支持的kqueue，epoll，rtsig或/dev/poll。
- `--without-http_gzip_module` — 不编译压缩的HTTP服务器的响应模块。编译并运行此模块需要zlib库。
- `--without-http_rewrite_module` 不编译重写模块。编译并运行此模块需要PCRE库支持。
- `--without-http_proxy_module` — 不编译http\_proxy模块。
- `--with-http_ssl_module` — 使用https协议模块。默认情况下，该模块没有被构建。建立并运行此模块的OpenSSL库是必需的。
- `--with-pcre= path` — 设置PCRE库的源码路径。PCRE库的源码（版本4.4 - 8.30）需要从PCRE网站下载并解压。其余的工作是Nginx的./configure和make来完成。正则表达式使用在location指令和ngx\_http\_rewrite\_module 模块中。
- `--with-pcre-jit` — 编译PCRE包含“just-in-time compilation”（1.1.12中，pcre\_jit指令）。
- `--with-zlib= path` — 设置的zlib库的源码路径。要下载从zlib（版本1.1.3 - 1.2.5）的并解压。其余

的工作是Nginx的./ configure和make完成。 ngx\_http\_gzip\_module模块需要使用zlib 。

- `--with-cc-opt= parameters` — 设置额外的参数将被添加到CFLAGS变量。例如,当你在FreeBSD上使用PCRE库时需要使用: `--with-cc-opt="-I /usr/local/include`。 .如需要需要增加 `select()`支持的文件数量: `--with-cc-opt="-D FD_SETSIZE=2048"`。
- `--with-ld-opt= parameters` — 设置附加的参数, 将用于在链接期间。例如, 当在FreeBSD下使用该系统的PCRE库,应指定: `--with-ld-opt="-L /usr/local/lib"`。

典型实例(下面为了展示需要写在多行, 执行时内容需要在同一行)

```
./configure
--sbin-path=/usr/local/nginx/nginx
--conf-path=/usr/local/nginx/nginx.conf
--pid-path=/usr/local/nginx/nginx.pid
--with-http_ssl_module
--with-pcre=../pcre-4.4
--with-zlib=../zlib-1.1.3
```

## 运行和控制Nginx

### 运行和控制Nginx

#### nginx命令行参数

不像许多其他软件系统, Nginx 仅有几个命令行参数, 完全通过配置文件来配置

`-c` 为 Nginx 指定一个配置文件, 来代替缺省的。

`-t` 不运行, 而仅仅测试配置文件。 nginx 将检查配置文件的语法的正确性, 并尝试打开配置文件中所引用到的文件。

`-v` 显示 nginx 的版本。

`-V` 显示 nginx 的版本, 编译器版本和配置参数。

#### nginx控制信号

可以使用信号系统来控制主进程。默认, nginx 将其主进程的 pid 写入到 /usr/local/nginx/nginx.pid 文件中。通过传递参数给 ./configure 或使用 `pid` 指令, 来改变该文件的位置。

主进程可以处理以下的信号:

TERM, INT	快速关闭
QUIT	从容关闭

HUP	重载配置 用新的配置开始新的工作进程 从容关闭旧的工作进程
USR1	重新打开日志文件
USR2	平滑升级可执行程序。
WINCH	从容关闭工作进程

尽管你不必自己操作工作进程，但是，它们也支持一些信号：

TERM, INT	快速关闭
QUIT	从容关闭
USR1	重新打开日志文件

## nginx 启动、停止、重启命令

### nginx启动

`sudo /usr/local/nginx/nginx` (nginx二进制文件绝对路径，可以根据自己安装路径实际决定)

### nginx从容停止命令，等所有请求结束后关闭服务

```
ps -ef |grep nginx
```

```
kill -QUIT nginx主进程号
```

### nginx 快速停止命令，立刻关闭nginx进程

```
ps -ef |grep nginx
```

```
kill -TERM nginx主进程号
```

### 如果以上命令不管用，可以强制停止

```
kill -9 nginx主进程号
```

如果嫌麻烦可以不用查看进程号，直接使用命令进行操作

其中`/usr/local/nginx/nginx.pid` 为`nginx.conf`中`pid`命令设置的参数，用来存放nginx主进程号的文件

```
kill -信号类型(HUP|TERM|QUIT) cat /usr/local/nginx/nginx.pid
```

例如

```
kill -QUIT `cat /usr/local/nginx/nginx.pid`
```

### nginx重启命令

nginx重启可以分成几种类型

本文档使用 [看云](#) 构建

1.简单型，先关闭进程，修改你的配置后，重启进程。

```
kill -QUIT cat /usr/local/nginx/nginx.pid
```

```
sudo /usr/local/nginx/nginx
```

2.重新加载配置文件，不重启进程，不会停止处理请求

3.平滑更新nginx二进制，不会停止处理请求

## 使用信号加载新的配置

Nginx 支持几个信号，能在它运行时控制其操作。其中最普通的是 15，用来中止运行的进程：

```
# ps aux | egrep '(PID|nginx)'
USER    PID %CPU %MEM  VSZ  RSS TTY    STAT START  TIME COMMAND
root    2213 0.0 0.0 6784 2036 ?     Ss   03:01  0:00 nginx: master process /usr/sbin/nginx -c /etc/nginx/nginx.conf
# kill -15 2213
```

而最有趣的是能平滑改变 nginx 配置的选项（请注意，在重载前，要先测试一下配置文件）：

```
# nginx -t -c /etc/nginx/nginx.conf
2006/09/16 13:07:10 [info] 15686#0: the configuration file /etc/nginx/nginx.conf syntax is ok
2006/09/16 13:07:10 [info] 15686#0: the configuration file /etc/nginx/nginx.conf was tested successfully
# ps aux | egrep '(PID|nginx)'
USER    PID %CPU %MEM  VSZ  RSS TTY    STAT START  TIME COMMAND
root    2213 0.0 0.0 6784 2036 ?     Ss   03:01  0:00 nginx: master process /usr/sbin/nginx -c /etc/nginx/nginx.conf
# kill -HUP 2213
```

当 nginx 接收到 HUP 信号，它会尝试先解析配置文件（如果指定配置文件，就使用指定的，否则使用默认的），成功的话，就应用新的配置文件（例如：重新打开日志文件或监听的套接字）。之后，nginx 运行新的工作进程并从容关闭旧的工作进程。通知工作进程关闭监听套接字但是继续为当前连接的客户提供服务。所有客户端的服务完成后，旧的工作进程被关闭。如果新的配置文件应用失败，nginx 将继续使用旧的配置进行工作。

## 平滑升级到新的二进制代码

你可以在不中断服务的情况下 - 新的请求也不会丢失，使用新的 nginx 可执行程序替换旧的（当升级新版本或添加/删除服务器模块时）。

首先，使用新的可执行程序替换旧的（最好做好备份），然后，发送 USR2 (kill -USR2 pid)信号给主进程。主进程将重命名它的 .pid 文件为 .oldbin (比如：/usr/local/nginx/logs/nginx.pid.oldbin)，然后执行新的可执行程序，依次启动新的主进程和新的工作进程：

```

PID PPID USER  %CPU  VSZ WCHAN  COMMAND
33126  1 root   0.0 1164 pause  nginx: master process /usr/local/nginx/sbin/nginx
33134 33126 nobody 0.0 1368 kqread nginx: worker process (nginx)
33135 33126 nobody 0.0 1380 kqread nginx: worker process (nginx)
33136 33126 nobody 0.0 1368 kqread nginx: worker process (nginx)
36264 33126 root   0.0 1148 pause  nginx: master process /usr/local/nginx/sbin/nginx
36265 36264 nobody 0.0 1364 kqread nginx: worker process (nginx)
36266 36264 nobody 0.0 1364 kqread nginx: worker process (nginx)
36267 36264 nobody 0.0 1364 kqread nginx: worker process (nginx)

```

在这时，两个 nginx 实例会同时运行，一起处理输入的请求。要逐步停止旧的实例，你必须发送 WINCH 信号给旧的主进程，然后，它的工作进程就将开始从容关闭：

```

PID PPID USER  %CPU  VSZ WCHAN  COMMAND
33126  1 root   0.0 1164 pause  nginx: master process /usr/local/nginx/sbin/nginx
33135 33126 nobody 0.0 1380 kqread nginx: worker process is shutting down (nginx)
36264 33126 root   0.0 1148 pause  nginx: master process /usr/local/nginx/sbin/nginx
36265 36264 nobody 0.0 1364 kqread nginx: worker process (nginx)
36266 36264 nobody 0.0 1364 kqread nginx: worker process (nginx)
36267 36264 nobody 0.0 1364 kqread nginx: worker process (nginx)

```

一段时间后，旧的工作进程处理了所有已连接请求后退出，就仅由新的工作进程来处理输入的请求了：

```

PID PPID USER  %CPU  VSZ WCHAN  COMMAND
33126  1 root   0.0 1164 pause  nginx: master process /usr/local/nginx/sbin/nginx
36264 33126 root   0.0 1148 pause  nginx: master process /usr/local/nginx/sbin/nginx
36265 36264 nobody 0.0 1364 kqread nginx: worker process (nginx)
36266 36264 nobody 0.0 1364 kqread nginx: worker process (nginx)
36267 36264 nobody 0.0 1364 kqread nginx: worker process (nginx)

```

这时，因为旧的服务器还尚未关闭它监听的套接字，所以，通过下面的几步，你仍可以恢复旧的服务器：

- 发送 HUP 信号给旧的主进程 - 它将在不重载配置文件的情况下启动它的工作进程
- 发送 QUIT 信号给新的主进程，要求其从容关闭其工作进程
- 发送 TERM 信号给新的主进程，迫使其退出
- 如果因为某些原因新的工作进程不能退出，向其发送 KILL 信号

新的主进程退出后，旧的主进程会由移除 `.oldbin` 前缀，恢复为它的 `.pid` 文件，这样，一切就都恢复到升级之前了。

如果尝试升级成功，而你也希望保留新的服务器时，发送 QUIT 信号给旧的主进程使其退出而只留下新的服务器运行：

```

PID PPID USER %CPU VSZ WCHAN COMMAND
36264 1 root 0.0 1148 pause nginx: master process /usr/local/nginx/sbin/nginx
36265 36264 nobody 0.0 1364 kqread nginx: worker process (nginx)
36266 36264 nobody 0.0 1364 kqread nginx: worker process (nginx)
36267 36264 nobody 0.0 1364 kqread nginx: worker process (nginx)

```

## 配置符号参考

### 配置符号参考

容量符号缩写

k,K	千字节
m,M	兆字节

例如, "8k", "1m" 代表字节数计量.

时间符号缩写

ms	毫秒
s	秒
m	分钟
h	小时
d	日
w	周
M	一个月, 30天
y	年, 365 天

例如, "1h 30m", "1y 6M". 代表 "1小时 30分", "1年零6个月".

## 优化 Nginx

### 优化 Nginx

Nginx使用hash表来协助完成请求的快速处理。

考虑到保存键及其值的hash表存储单元的大小不至于超出设定参数(hash bucket size) , 在启动和每次重

新配置时，Nginx为hash表选择尽可能小的尺寸。

直到hash表超过参数(hash max size)的大小才重新进行选择. 对于大多数hash表都有指令来修改这些参数。例如，保存服务器名字的hash表是由指令 `server_names_hash_max_size` 和 `server_names_hash_bucket_size` 所控制的。参数hash bucket size总是等于hash表的大小，并且是一路处理器缓存大小的倍数。在减少了在内存中的存取次数后，使在处理器中加速查找hash表键值成为可能。如果hash bucket size等于一路处理器缓存的大小，那么在查找键的时候，最坏的情况下在内存中查找的次数为2。第一次是确定存储单元的地址，第二次是在存储单元中查找键值。因此，如果Nginx给出需要增大 hash max size 或 hash bucket size的提示，那么首要的是增大前一个参数的大小。

## 事件模型

Nginx支持如下处理连接的方法（I/O复用方法），这些方法可以通过 `use` 指令指定。

- **select** - 标准方法。如果当前平台没有更有效的方法，它是编译时默认的方法。你可以使用配置参数 `--with-select_module` 和 `--without-select_module` 来启用或禁用这个模块。
- **poll** - 标准方法。如果当前平台没有更有效的方法，它是编译时默认的方法。你可以使用配置参数 `--with-poll_module` 和 `--without-poll_module` 来启用或禁用这个模块。
- **kqueue** - 高效的方法，使用于 FreeBSD 4.1+, OpenBSD 2.9+, NetBSD 2.0 和 MacOS X. 使用双处理器的MacOS X系统使用kqueue可能会造成内核崩溃。
- **epoll** - 高效的方法，使用于Linux内核2.6版本及以后的系统。在某些发行版本中，如SuSE 8.2, 有让2.4版本的内核支持epoll的补丁。
- **rtsig** - 可执行的实时信号，使用于Linux内核版本2.2.19以后的系统。默认情况下整个系统中不能出现大于1024个POSIX实时(排队)信号。这种情况对于高负载的服务器来说是低效的；所以有必要通过调节内核参数 `/proc/sys/kernel/rtsig-max` 来增加队列的大小。可是从Linux内核版本2.6.6-mm2开始，这个参数就不再使用了，并且对于每个进程有一个独立的信号队列，这个队列的大小可以用 `RLIMIT_SIGPENDING` 参数调节。当这个队列过于拥塞，nginx就放弃它并且开始使用 `poll` 方法来处理连接直到恢复正常。
- **/dev/poll** - 高效的方法，使用于 Solaris 7 11/99+, HP/UX 11.22+ (eventport), IRIX 6.5.15+ 和 Tru64 UNIX 5.1A+.
- **eventport** - 高效的方法，使用于 Solaris 10. 为了防止出现内核崩溃的问题，有必要安装 [这个](#) 安全补丁。

## 参考

[Hash表原始文档](#)

# 常见问题(FAQ)

## 常见问题(FAQ)



- [#notwork 某些东东不工作 (URL重写, 代理, 路径, ...)]
- [#other 有没有其它类似的Web服务器]
- [#chroot 对于chroot的支持是否在计划之中?]
- [#usecase 在什么情况下使用Nginx比使用squid要好?]
- [#imapexample 有没有人能给出一个完整的.conf配置文件来详细的解读一下怎么配置和测试 IMAP 模块, 而不只是关于 IMAP 的只言片语啊?]
- [#smtpexample 怎么让Nginx成为以postfix做为后端的SMTP代理?]
- [#loadbalancing Nginx使用什么算法来实现负载均衡? 它能实现基于连接数的负载均衡吗?]
- [#proxy\_buffering 我能关闭从代理服务器到后端服务器的缓存吗或者使用上传进度特性?]

## 某些东东不工作 (URL重写, 代理, 路径, ...)

例如: 如URL重写(rewrite)不工作了或者是unix的路径(/\$PATH)的问题云云...

请仔细阅读 [NginxDebugging] 并且 逐行 查看错误日志。

如果你没找到错误 打起精神 试着到IRC或邮件列表里说明一下你碰到的问题。

## 有没有其它类似的Web服务器

- [Cherokee](#)
- [Lighttpd \(Lighty\)](#)
- [thttpd](#)

关于各自的优缺点请使用自己喜欢的搜索引擎查找 ;-)

## 对于chroot的支持是否在计划之中?

有人知道吗?

## 在什么情况下使用Nginx比使用squid要好? 反之亦然。

大体上来说nginx主要用于反向加速代理而不是像squid那样做为常规代理服务器。Nginx的最大优势在于高负载情况下内存和CPU的低消耗。我不认为squid能给你带来比nginx更好的性能。

## 怎么让Nginx成为以postfix做为后端的SMTP代理?

有人知道不?

## Nginx使用什么算法来实现负载均衡? 它能实现基于连接数的负载均衡吗?

目前Nginx使用简单的轮巡算法, 所以无法做基本链接计数的负载均衡。这个可能会在将来的版本中有所改变。

## > 我能关闭从代理服务器到后端服务器的缓存吗或者使用上传进度特性?

基于 太多人询问下面的问题:

- 我能为了得到上传进度而关闭代理的缓存吗
- 使用nginx我怎样才能给用户显示上传进度
- ...

到目前为止 (2007-Apr-26) 还没有办法关闭到后端服务器的缓存.

## 调试 nginx

---

### 调试 nginx

Nginx的一个 **杀手级特性** 就是你能使用 `debug_connection` 指令只调试 **某些** 连接。

这个设置只有是你使用 `--with-debug` 编译的nginx才有效。

# 核心模块

---

## 鏢稿績妑“激

## Nginx主模块

---

### Nginx主模块

这里是控制 Nginx 的基本功能的指令.

### 指令

- [#daemon daemon]
- [#debug\_points debug\_points]
- [#error\_log error\_log]
- [#include include]
- [#lock\_file lock\_file]
- [#master\_process master\_process]
- [#pid pid]
- [#ssl\_engine ssl\_engine]
- [#timer\_resolution timer\_resolution]
- [#user user group]
- [#worker\_cpu\_affinity worker\_cpu\_affinity]
- [#worker\_priority worker\_priority]
- [#worker\_processes worker\_processes]
- [#worker\_rlimit\_core worker\_rlimit\_core]
- [#worker\_rlimit\_nofile worker\_rlimit\_nofile]
- [#worker\_rlimit\_sigpending worker\_rlimit\_sigpending]
- [#working\_directory working\_directory]

### daemon

语法: *daemon on / off*

缺省值: *on*

```
daemon off;
```

Do not use the "daemon" and "master\_process" directives in a production mode, these options are mainly used for development only. You can use `daemon off` safely in production mode with `runit / daemontools` however you can't do a graceful upgrade. `master_process off` should never be used in production.

生产环境中不要使用"daemon"和"master\_process"指令，这些选项仅用于开发调试。

## debug\_points

语法:`debug_points [stop | abort]`

缺省值:`none`

```
debug_points stop;
```

There are some assertion points inside nginx that allow to stop nginx to attach the debugger, or to abort and to create the core file.

应该适用于调试，在调试器内设置断点之类的。

## error\_log

语法:`error_log file [ debug | info | notice | warn | error | crit ]`

缺省值:`${prefix}/logs/error.log`

Nginx 添加 `--with-debug` 编译参数，你还能够使用以下配置:

```
error_log LOGFILE [ debug_core | debug_alloc | debug_mutex | debug_event  
]: | debug_http | debug_imap ;
```

## include

语法:`include file | *`

缺省值:`none`

你可以在任意地方使用include指令实现配置文件的包含，类似于apache中的include方法，可减少主配置文件d。

`include` 指令还支持像下面配置一样的全局包含的方法，例如包含一个目录下所有以".conf"结尾的文件:

```
include vhosts/*.conf;
```

注意路径受到configure编译参数`--prefix=<路径>`指令的影响，如果没有指定，Nginx默认是被编译

Nginx 中文官方文档  
在/usr/local/nginx。

语法:*lock\_file file*

缺省值:*compile-time option*

```
lock_file /var/log/lock_file;
```

nginx uses accept mutex to serialize accept() syscalls. If nginx is built by gcc, Intel C++, or SunPro C++ compilers on i386, amd64, sparc64, and ppc64, then nginx uses the atomic instructions to implement the mutex. In other cases the lock file would be used.

## master\_process

语法:*master\_process on | off*

缺省值:*on*

```
master_process off;
```

Do not use the "daemon" and "master\_process" directives in a production mode, these options are mainly used for development only.

生产环境中不要使用"daemon"和"master\_process"指令，这些选项仅用于开发调试。

## pid

语法:*pid file*

缺省值:*compile-time option* Example:

```
pid /var/log/nginx.pid;
```

进程id存储文件。可以使用 `kill -HUP $(cat /var/log/nginx.pid)` 对Nginx进行配置文件重新加载。

## ssl\_engine

语法:*ssl\_engine engine*

缺省值:*system dependent*

Here you can set your preferred openssl engine if any available. You can figure out which one do you have with the commandline tool:

该指令用于指定openssl使用的引擎。你可以通过下面的命令行获知系统目前支持的openssl引擎

`openssl engine -t`

例如:

```
$ openssl engine -t
(cryptodev) BSD cryptodev engine
: [ available ]
(dynamic) Dynamic engine loading support
: [ unavailable ]
```

## timer\_resolution

语法: *timer\_resolution t*

缺省值: *none*

Example:

```
timer_resolution 100ms;
```

The directive allows to decrease number `gettimeofday()` syscalls. By default `gettimeofday()` is called after each return from `kevent()`, `epoll`, `/dev/poll`, `select()`, `poll()`.

But if you need an exact time in logs when logging `$upstream_response_time`, or `$msec` variables, then you should use `timer_resolution`.

## user

语法: *user user [group]*

缺省值: *nobody nobody*

指定Nginx Worker进程运行用户，默认是nobody帐号。

例如:

```
user www users;
```

## worker\_cpu\_affinity

语法: *worker\_cpu\_affinity cpumask [cpumask...]*

缺省值: *none*

Linux only.

With this option you can bind the worker process to a CPU, it calls `sched_setaffinity()`.

仅适用于linux，使用该选项可以绑定worker进程和CPU。

For example,

```
worker_processes 4;
worker_cpu_affinity 0001 0010 0100 1000;
```

Bind each worker process to one CPU only.

分别给每个worker进程绑定一个CPU。

```
worker_processes 2;
worker_cpu_affinity 0101 1010;
```

Bind the first worker to CPU0/CPU2, bind the second worker to CPU1/CPU3. This is suitable for HTTP.

将CPU0/CPU2绑定给第一个worker进程，将CPU1/CPU3绑定给第二个worker进程。

## worker\_priority

语法: *worker\_priority [-] number*

缺省值: *on*

With this option you can give to all worker processes the priority (nice) you need/wish, it calls `setpriority()`.

使用该选项可以给所有的worker进程分配优先值。

## worker\_processes

语法: *worker\_processes number*

缺省值: *1*

e.g.:

```
worker_processes 5;
```

nginx has the ability to use more than one worker process for several reasons:

nginx可以使用多个worker进程，原因如下：

1. to use SMP
2. to decrease latency when workers blockend on disk I/O

3. to limit number of connections per process when `select()/poll()` is used

The `worker_processes` and `worker_connections` from the event sections allows you to calculate `maxclients` value: `k`

`max_clients = worker_processes * worker_connections`

## worker\_rlimit\_core

语法: `worker_rlimit_core size`

缺省值: `'`

Maximum size of core file per worker;

## worker\_rlimit\_nofile

语法: `worker_rlimit_nofile limit` 缺省值: `'`

Specifies the value for maximum file descriptors that can be opened by this process.

指定

## worker\_rlimit\_sigpending

语法: `worker_rlimit_sigpending limit` 缺省值: `'`

(Since Linux 2.6.8) Specifies the limit on the number of signals that may be queued for the real user ID of the calling process.

## working\_directory

语法: `working_directory path` 缺省值: `--prefix`

This is the working directory for the workers. It's used for core files only. nginx uses absolute paths only, all relative paths in configuration files are relative to `--prefix==PATH`

# Nginx事件模块

---

## Nginx事件模块

### accept\_mutex

Syntax: `accept_mutex [ on | off ]`

Default: `on`



nginx 使用连接互斥锁进行顺序的accept()系统调用.

## accept\_mutex\_delay

**Syntax:** *accept\_mutex\_delay Nms;*

**Default:** *500ms*

如果一个进程没有互斥锁，它将延迟至少多长时间。默认情况下，延迟是500ms。

## debug\_connection

**Syntax:** *debug\_connection [ip | CIDR]*

**Default:** *none*

Since 0.3.54 this option support CIDR address format

This option gives you the ability to write debug log only for the clients of this IP/NET.

Several different directives are possible.

Example:

```
error_log /var/log/nginx/errors;
events {
    debug_connection 192.168.1.1;
}
```

## devpoll\_changes

## devpoll\_events

## kqueue\_events

## epoll\_events

**Syntax:** *devpoll\_changes*

**Default:**

These directives specify how many events may be passed to/from kernel, using appropriate method.

The default `devpoll` values are 32, the rest are 512.

## multi\_accept

**Syntax:** *multi\_accept [ on | off ]*

**Default:** *off*

`multi_accept` tries to `accept()` as many connections as possible after nginx gets notification about a new connection.

## rtsig\_signo

**Syntax:** *rtsig\_signo*

**Default:**

nginx uses two signals when the `rtsig` method is used. The directive specifies the first signal number. The second is plus 1.

By default `rtsig_signo` is `SIGRTMIN+10` (40).

## rtsig\_overflow\_events

## rtsig\_overflow\_test

## rtsig\_overflow\_threshold

**Syntax:** *rtsig\_overflow\_\**

**Default:**

These directives specify how to handle `rtsig` queue overflows. When overflow occurred nginx flushes `rtsig` queue, then it handles events switching between `poll()` and `rtsig`. `poll()` handles consecutively all unhandled events, while `rtsig` periodically drains queue to prevent a new overflow. When overflow is handled completely, nginx switches to `rtsig` method again.

The `rtsig_overflow_events` specifies the number of events to be passed via `poll()`. The default is 16.

The `rtsig_overflow_test` specifies after which number of events handled by `poll()` nginx will drain `rtsig` queue. The default is 32.

The `rtsig_overflow_threshold` works in Linux 2.4.x only. Before to drain `rtsig` queue nginx looks in a kernel how the queue is filled up

The default is 1/10. "`rtsig_overflow_threshold 3`" means 1/3.

## use

**Syntax:** *use [ kqueue | rtsig | epoll | /dev/poll | select | poll | eventport ]*

**Default:**

如果在 `./configure` 的时候指定了不止一种事件模型，那么可以设置其中一个，以便告诉nginx使用哪种事件模型。默认情况下nginx会在 `./configure` 时找出最适合系统的事件模型。

你可以在 [这里](#) 查看可用的事件模型以及如何在 `./configure` 时激活

## worker\_connections

**Syntax:** *worker\_connections number*

**Default:**

通过`worker_connections`和`worker_processes`可以计算出`maxclients`：

```
max_clients = worker_processes * worker_connections
```

作为反向代理，`max_clients`为：

```
max_clients = worker_processes * worker_connections/4
```

Since a browser opens 2 connections by default to a server and nginx uses the fds (file descriptors) from the same pool to connect to the upstream backend

## References

# 基本模块

---

## “激”的用途

## http核心模块

---

### http核心模块

#### 指令

#### alias

**syntax:** *alias file-path|directory-path;*

**default:** *no*

**context:** *location*

This directive assigns a path to be used for the indicated location. Note that it may look similar to the `root` directive, but the document root doesn't change, just the file system path used for the request.

For example:

```
location /i/ {
    alias /spool/w3/images/;
}
```

The request `/i/top.gif` will return the file `/spool/w3/images/top.gif`.

It is possible to use variables in the replacement path.

The `alias` directive cannot be used inside a regex-specified `location`. If you need to do this you must use a combination of `rewrite` and `root`.

## client\_body\_in\_file\_only

**syntax:** *client\_body\_in\_file\_only on|off*

**default:** *off*

**context:** *http, server, location*

The directive enables to store a client request body in a file.

Please note that the file at the request completion will not be removed if the directive is enabled.

This directive can be used for debugging and for the `$r->request_body_file` method in the Embedded Perl module.

## client\_body\_in\_single\_buffer

**syntax:***client\_body\_in\_single\_buffer*

**default:***off*

**context:***http, server, location*

The directive(0.7.58+) specifies whether to keep the whole body in a single client request buffer. The directive is recommended when using the variable `$request_body` to reduce the operations of copying.

## client\_body\_buffer\_size

**syntax:***client\_body\_buffer\_size the\_size*

**default:***8k/16k*

**context:***http, server, location*

The directive specifies the client request body buffer size.

If the request body is more than the buffer, then the entire request body or some part is written in a temporary file.

The default size is equal to two pages size, depending on platform it is either 8K or 16K.

## client\_body\_temp\_path

**syntax:***client\_body\_temp\_path dir-path [ level1 [ level2 [ level3 ]*

**default:***client\_body\_temp*

**context:***http, server, location*

The directive assigns the directory for storing the temporary files in it with the body of the request.

In the `dir-path` a hierarchy of subdirectories up to three levels are possible.

For example

```
client_body_temp_path /spool/nginx/client_temp 1 2;
```

The directory structure will be like this:

```
/spool/nginx/client_temp/7/45/00000123457
```

## client\_body\_timeout

**syntax:***client\_body\_timeout time*

**default:***60*

**context:***http, server, location*

Directive sets the read timeout for the request body from client.

The timeout is set only if a body is not get in one readstep. If after this time the client send nothing, nginx returns error "Request time out" (408).

## client\_header\_buffer\_size

**syntax:***client\_header\_buffer\_size size*

**default:***1k*

**context:***http, server*

Directive sets the headerbuffer size for the request header from client.

For the overwhelming majority of requests it is completely sufficient a buffer size of 1K.

However if a big cookie is in the request-header or the request has come from a wap-client the header can not be placed in 1K, therefore, the request-header or a line of request-header is not located completely in this buffer nginx allocate a bigger buffer, the size of the bigger buffer can be set with the instruction `large_client_header_buffers`.

## client\_header\_timeout

**syntax:***client\_header\_timeout time*

**default:***60*

**context:***http, server*

Directive assigns timeout with reading of the title of the request of client.

The timeout is set only if a header is not get in one readstep. If after this time the client send

nothing, nginx returns error "Request time out" (408).

## client\_max\_body\_size

**syntax:***client\_max\_body\_size size*

**default:***client\_max\_body\_size 1m*

**context:***http, server, location*

Directive assigns the maximum accepted body size of client request, indicated by the line `Content-Length` in the header of request.

If size is greater the given one, then the client gets the error "Request Entity Too Large" (413).

It is necessary to keep in mind that the browsers do not know how to correctly show this error.

## default\_type

**syntax:***default\_type MIME-type*

**default:***default\_type text/plain*

**context:***http, server, location*

Assigns the default MIME-type to be used for files where the standard MIME map doesn't specify anything.

See also types

Example:

```
location = /proxy.pac {
    default_type application/x-ns-proxy-autoconfig;
}
location = /wpad.dat {

    rewrite . /proxy.pac;
    default_type application/x-ns-proxy-autoconfig;
}
```

## directio

**syntax:***directio [size|off]*

**default:***directio off*

**context:***http, server, location*

The directive enables use of flags `O_DIRECT` (FreeBSD, Linux), `F_NOCACHE` (Mac OS X) or `directio()` function (Solaris) for reading files with size greater than specified. This directive disables use of `sendfile` for this request. This directive may be useful for big files:

```
directio 4m;
```

## error\_page

**syntax:** `error_page code [ code... ] [ = | =answer-code ] uri | @named_location`

**default:** `no`

**context:** `http, server, location, if in location`

The directive specifies the URI, which will be showed for the errors indicated.

Example:

```
error_page 404      /404.html;

error_page 502 503 504 /50x.html;
error_page 403      http://example.com/forbidden.html;
error_page 404      = @fetch;
```

Furthermore, it is possible to change the code of answer to another, for example:

```
error_page 404 =200 /.empty.gif;
```

If an erroneous answer is processed by the proxied or FastCGI server and this server can return the different answer codes, for example, 200, 302, 401 or 404, then it is possible to hide the code returned:

```
error_page 404 = /404.php;
```

If you wish to return the error code as-is, OMIT the `=` from the `error_page` directive:

```
error_page 404 /404.php;
```

## if\_modified\_since

**syntax:** `if_modified_since [off|exact|before]`

**default:** `if_modified_since exact`



**context:***http, server, location*

The directive (0.7.24) defines how to compare time of file modification and time in request header "If-Modified-Since":

- **off** — don't check "If-Modified-Since" request header (0.7.34);
- **exact** — exact match;
- **before** — file modification time should be less than time in "If-Modified-Since" request header.

## index

**syntax:***index file [file...]*

**default:***index index.html*

**context:***http, server, location*

Directive determines the file(s) which will be used as the index. It's possible to use variables in the name of file. The presence of the files is checked in the order of their enumeration. A file with an absolute path can be put at the end. Example using a variable:

```
index index.$geo.html index.0.html /index.html;
```

If you want to automatically generate an index from a directory listing, use `autoindex on`.

## internal

**syntax:***internal*

**default:***no*

**context:***location*

**internal** indicates that the matching location can be used only for so called "internal" requests.

For external requests it will return the error "Not found" (404).

Internal requests are the following:

- requests redirected by the instruction **error\_page**
- subrequests created by the command **include virtual** of the "ngx\_http\_ssi\_module" module
- requests changed by the instruction **rewrite** of the "ngx\_http\_rewrite\_module" module

An example to prevent clients fetching error pages directly:

```
error_page 404 /404.html;
location /404.html {
    internal;
}
}
```

Nginx 0.7.x introduces a new syntax for internal locations: `@location`

Example:

```
location / {
    root /var/www/html;
    error_page 404 @40x;
}

location @40x {
    root /var/www/errors/40x.html;
}
```

## keepalive\_timeout

**syntax:** *keepalive\_timeout [ time ]*

**default:** *keepalive\_timeout 75*

**context:** *http, server, location*

The first parameter assigns the timeout for keep-alive connections with the client. The server will close connections after this time.

The optional second parameter assigns the `time` value in the header `Keep-Alive: timeout=time` of the response. This header can convince some browsers to close the connection, so that the server does not have to. Without this parameter, nginx does not send a `Keep-Alive` header (though this is not what makes a connection "keep-alive").

The parameters can differ from each other.

Notes on how browsers handle the `Keep-Alive` header:

- MSIE and Opera ignore the "Keep-Alive: timeout= " header.
- MSIE keeps the connection alive for about 60-65 seconds, then sends a TCP RST.
- Opera keeps the connection alive for a long time.
- Mozilla keeps the connection alive for N plus about 1-10 seconds.
- Konqueror keeps the connection alive for about N seconds.

## keepalive\_requests

**syntax:***keepalive\_requests n*

**default:***keepalive\_requests 100*

**context:***http, server, location*

Number of requests which can be made over a keep-alive connection.

## large\_client\_header\_buffers

**syntax:***large\_client\_header\_buffers number size*

**default:***large\_client\_header\_buffers 4 4k/8k*

**context:***http, server*

Directive assigns the maximum number and size of buffers for large headers to read from client request.

The request line can not be bigger than the size of one buffer, if the client send a bigger header nginx returns error "Request URI too large" (414).

The longest header line of request also must be not more than the size of one buffer, otherwise the client get the error "Bad request" (400).

Buffers are separated only as needed.

By default the size of one buffer is equal to the size of page, depending on platform this either 4K or 8K, if at the end of working request connection converts to state keep-alive, then these buffers are freed.

## limit\_except

**syntax:***limit\_except methods {...}*

**default:***no*

**context:***location*

Directive limits HTTP-methods, accessible inside location.

For the limitation can be used the directives of modules ngx\_http\_access\_module and ngx\_http\_auth\_basic\_module:

```
limit_except GET {
    allow 192.168.1.0/32;
    deny all;
}
```

## limit\_rate

**syntax:***limit\_rate speed*

**default:***no*

**context:***http, server, location, if in location*

Directive assigns the speed of transmission of the answer to client. Speed is assigned in the bytes per second. Limitation works only for one connection, i.e., if client opens 2 connections, then total velocity will be 2 times higher than the limit set.

If it is necessary to limit speed for the part of the clients at the *server* level, based on some kind of condition - then this directive does not apply. Instead you should specify the limit by assigning the value to the `$limit_rate` variable, as shown below:

```
server {
    if ($slow) {
        set $limit_rate 4k;
    }
}
```

## limit\_rate\_after

**syntax:***limit\_rate\_after time*

**default:***limit\_rate\_after 1m*

**context:***http, server, location, if in location*

The directive limits speed only after the first part was sent.

```
limit_rate_after 1m;
limit_rate 100k;
```

## listen

**syntax:***listen address:port [ default [ backlog=num | rcvbuf=size | sndbuf=size / accept\_filter=filter | deferred | bind | ssl ] ]*

**default:***listen 80***context:***server*

The *listen* directive specifies the address and port accepted by the enclosing server {...} block. It is possible to specify only an address, only a port, or a server name as the address.

```
listen 127.0.0.1:8000;

listen 127.0.0.1;
listen 8000;
listen *:8000;
listen localhost:8000;
```

IPv6 address(0.7.36) are set in square brackets:

```
listen [::]:8000;
listen [fe80::1];
```

When Linux (in contrast to FreeBSD) binds IPv6 [::], it will also bind the corresponding IPv4 address. If other non IPv6 server definitions already used this, the bind will fail. By using explicit addresses instead of [::] this will not be a problem. It is also possible to specify that this listen directive is only to bind the IPv6 address with use of the "default ipv6only=on" option. Note that this only affect this listen directive, the same [server {...}](#) block may very well listen to IPv4 as well, specified by other listen directives.

```
listen [2a02:750:5::123]:80;
listen [::]:80 default ipv6only=on;
```

If only address is given, the default port is 80.

If the directive has the *default* parameter, then the enclosing server {...} block will be the default server for the address:port pair. This is useful for name-based virtual hosting where you wish to specify the default server block for hostnames that do not match any [#server\_name server\_name] directives. If there are no directives with the *default* parameter, then the default server will be the first server block in which the *address:port* pair appears.

The *listen* directive accepts several parameters, specific to the system calls *listen(2)* and *bind(2)*. These parameters must follow the *default* parameter.

*backlog=num* -- is assigned parameter *backlog* in call *listen(2)*. By default backlog equals -1.

*rcvbuf=size* -- assigned to the parameter *SO\_RCVBUF* for the listening socket.

*sndbuf=size* -- assigned to the parameter *SO\_SNDBUF* for the listening socket.

`accept_filter=filter` -- is assigned name `accept-filter`.

. It works only to FreeBSD, it is possible to use two filters -- `dataready` and `httpready` . On the signal `-HUP` `accept-filter` it is possible to change only in the quite last versions FreeBSD: 6.0, 5.4-STABLE and 4.11-STABLE.

`deferred` -- indicates to use that postponed `accept(2)` on Linux with

. the aid of option `TCP_DEFER_ACCEPT` .

`bind` -- indicates that it is necessary to make `bind(2)` separately

. for this pair of `address:port`. The fact is that if are described several directives `listen` with the identical port, but by different addresses and one of the directives `listen` listens to on all addresses for this port (`*:port`), then nginx will make `bind(2)` only to `*:port`. It is necessary to consider that in this case for determining the address, on which the connections arrive, is done the system call `getsockname()`. But if are used parameters `backlog`, `rcvbuf`, `sndbuf`, `accept_filter` or `deferred`, then it is always done separately for this pair of `address:port` `bind(2)`.

`ssl` -- parameter (0.7.14) not related to `listen(2)` and `bind(2)` syscalls

. but instead specifies that connections accepted on this port should work in SSL mode. This allows to specify compact configurations for servers working with both HTTP and HTTPS. For example:

```
listen 80;
listen 443 default ssl;
```

Example of the use of the parameters:

```
listen 127.0.0.1 default accept_filter=dataready backlog=1024;
```

## location

**syntax:** `location` [=/~|~|^~] /uri/ { ... }\*

**default:** `no`

**context:** `server`

This directive allows different configurations depending on the URI. It can be configured using both literal strings and regular expressions. To use regular expressions, you must use the a prefix:

1. `~*` for case insensitive matching
2. `~` for case sensitive matching

To determine which `location` directive matches a particular query, the literal strings are checked

first. Literal strings match the beginning portion of the query and are case-sensitive - the most specific match will be used (see below on how nginx determines this). Afterwards, regular expressions are checked in the order defined in the configuration file. The first regular expression to match the query will stop the search. If no regular expression matches are found, the result from the literal string search is used.

There are two ways to modify this behavior. The first is to use the prefix "=", which matches an exact query only. If the query matches, then searching stops and the request is handled immediately. For example, if the request "/" occurs frequently, then using "location = /" will expedite the processing of this request.

The second is to use the prefix `^~`. This prefix is used with a literal string and tells nginx to not check regular expressions if the path provided is a match. For instance, "location `^~` /images/" would halt searching if the query begins with /images/ - all regular expression directives would not be checked.

To summarize, the order in which directives are checked is as follows:

1. Directives with the `=` prefix that match the query exactly. If found, searching stops.
2. All remaining directives with conventional strings. If this match used the `^~` prefix, searching stops.
3. Regular expressions, in the order they are defined in the configuration file.
4. If #3 yielded a match, that result is used. Otherwise, the match from #2 is used.

It is important to know that nginx does the comparison against decoded URIs. For example, if you wish to match `"/images/%20/test"`, then you must use `"/images/ /test"` to determine the location.

Example:

```

location = / {

    # matches the query / only.
    [ configuration A ]
}
location / {
    # matches any query, since all queries begin with /, but regular
    # expressions and any longer conventional blocks will be

    # matched first.
    [ configuration B ]
}
location ^~ /images/ {
    # matches any query beginning with /images/ and halts searching,
    # so regular expressions will not be checked.

    [ configuration C ]
}
location ~* \.(gif|jpg|jpeg)$ {
    # matches any request ending in gif, jpg, or jpeg. However, all
    # requests to the /images/ directory will be handled by

    # Configuration C.
    [ configuration D ]
}

```

Example requests:

- / -> configuration A
- /documents/document.html -> configuration B
- /images/1.gif -> configuration C
- /documents/1.jpg -> configuration D

Note that you could define these 4 configurations in any order and the results would remain the same. While nested locations are allowed by the configuration file parser, their use is discouraged and may produce unexpected results.

## How nginx Determines Which Path Matches

Most users will not need to know how nginx internally determines which path to use - know that it will choose the "most specific" match for your URI in a speedy and efficient manner. For those that are curious, however, read on.

All path strings are sorted alphabetically. nginx then proceeds to search down the list looking for matches until the request URI has a "higher" value than the current string in the sorted list. This is determined using the family of `strcmp()` functions - once `strcmp()` returns 1, then searching stops. Once searching stops, the last string which matched is used.



For example, lets say we have the following paths:

```
/
/a
/apple
/banana
```

Now, lets say the server gets the path `/az`. nginx would begin search down this list. First, `/` would match, but `/` is less than `/az` so searching continues. `/a` also matches, but `/a` is still less than `/az` so we continue again. `/apple` does not match. The next string, `/banana`, is greater than `/az` so searching stops and the last match, `/a`, would be used.

## Named Locations

Later versions of Nginx (>0.7.x) have Named Locations. These are location blocks that start with an `@` symbol, and are treated similar to internal locations except that they preserve the original URI on internal redirects for `error_page` or `try_files` directives.

```
location / {
    try_files @joomla index.html;
}
location @joomla {
    rewrite ^(.*)$ /index.php?q=$1 last;
}
```

## log\_not\_found

**syntax:***log\_not\_found [on/off]*

**default:***log\_not\_found on*

**context:***http, server, location*

The directive enables or disables messages in `error_log` about files not found on disk.

## log\_subrequest

**syntax:***log\_subrequest [on/off]*

**default:***log\_subrequest off*

**context:***http, server, location*

The directive enables or disables messages in `access_log` about sub-requests such as rewrite rules and/or SSI requests.

## msie\_padding

**syntax:***msie\_padding [on|off]*

**default:***msie\_padding on*

**context:***http, server, location*

This directive enables or disables the the `msie_padding` feature for MSIE browsers. When this is enabled, nginx will pad the size of the response body to a minimum of 512 bytes, for responses with a status code above or equal to 400.

The padding prevents the activation of "friendly" HTTP error pages in MSIE, so as to not hide the more-informative error pages from the server.

Note that Chromium/Chrome have "friendly" HTTP error pages as well, but this feature will not send them the padding.

## msie\_refresh

**syntax:***msie\_refresh [on|off]*

**default:***msie\_refresh off*

**context:***http, server, location*

This directive allows or forbids issuing a `refresh` instead of doing a `redirect` for MSIE.

## open\_file\_cache

**syntax:***open\_file\_cache max = N [inactive = time] | off*

**default:***open\_file\_cache off*

**context:***http, server, location*

The directive sets the cache activity on. These information can be stored:

- Open file descriptors, information with their size and modification time;
- Information about the existence of directories;
- Error information when searches for a file - no file, do not have rights to read, etc. See also `open_file_cache_errors`

Options directive:

- `max` - specifies the maximum number of entries in the cache. When the cache overflows, the longest-used items(LRU) will be removed;
- `inactive` - specifies the time when the cached item is removed, if it has not been downloaded

during that time, the default is 60 seconds;

- `off` - prohibits the cache activity.

Example:

```
open_file_cache max=1000 inactive=20s;
open_file_cache_valid 30s;
open_file_cache_min_uses 2;
open_file_cache_errors on;
```

## open\_file\_cache\_errors

**syntax:** *open\_file\_cache\_errors on | off*

**default:** *open\_file\_cache\_errors off*

**context:** *http, server, location*

The directive specifies to cache errors or not when searching a file.

## open\_file\_cache\_min\_uses

**syntax:** *open\_file\_cache\_min\_uses number*

**default:** *open\_file\_cache\_min\_uses 1*

**context:** *http, server, location*

The directive defines the minimum use number of a file within the time specified in the directive parameter `inactive` in `open_file_cache`. If use more than the number, the file descriptor will remain open in the cache.

## open\_file\_cache\_valid

**syntax:** *open\_file\_cache\_valid time*

**default:** *open\_file\_cache\_valid 60*

**context:** *http, server, location*

The directive specifies the time when need to check the validity of the information about the item in `open_file_cache`.

## optimize\_server\_names

**syntax:** *optimize\_server\_names [ on|off ]*

**default:** *optimize\_server\_names on*

**context:***http, server*

Directive activates or deactivates optimization of host name checks for name-based virtual servers.

In particular, the check influences the name of the host used in redirects. If optimization is on, and all name-based servers listening on one address:port pair have identical configuration, then names are not checked during request execution and redirects use first server name.

If redirect must use host name passed by the client, then the optimization must be turned off.

Note: this directive is deprecated in nginx 0.7.x, use `server_name_in_redirect` instead.

## port\_in\_redirect

**syntax:***port\_in\_redirect [ on/off ]*

**default:***port\_in\_redirect on*

**context:***http, server, location*

Directive allows or prevents port indication in redirects handled by nginx.

If `port_in_redirect` is on, then Nginx will not add the port in the url when the request is redirected.

## recursive\_error\_pages

**syntax:***recursive\_error\_pages [on/off]*

**default:***recursive\_error\_pages off*

**context:***http, server, location*

`recursive_error_pages` enables or disables following a chain of `error_page` directives.

## resolver

**syntax:***resolver address*

**default:***no*

**context:***http, server, location*

TODO: Description

## resolver\_timeout

**syntax:***resolver\_timeout time*

**default:***30*

**context:***http, server, location*

Resolver timeout in seconds.

## root

**syntax:***root path*

**default:***root html*

**context:***http, server, location, if in location*

**root** specifies the document root for the requests. For example, with this configuration

```
location /i/ {
    root /spool/w3;
}
```

A request for `/i/top.gif` will return the file `/spool/w3/i/top.gif`. You can use variables in the argument.

**note:** Keep in mind that the root will still append the directory to the request so that a request for `/i/top.gif` will not look in `/spool/w3/top.gif` like might happen in an Apache-like alias configuration where the location match itself is dropped. Use the `alias` directive to achieve the Apache-like functionality.

## satisfy\_any

**syntax:***satisfy\_any [ on/off ]*

**default:***satisfy\_any off*

**context:***location*

Directive solves access with at least one successful checking, executed by modules `NginxHttpAccessModule` or `NginxHttpAuthBasicModule`:

```
location / {
    satisfy_any on;
    allow 192.168.1.0/32;
    deny all;
    auth_basic "closed site";
    auth_basic_user_file conf/htpasswd;
}
```

## send\_timeout

**syntax:***send\_timeout the time*

**default:***send\_timeout 60*

**context:***http, server, location*

Directive assigns response timeout to client. Timeout is established not on entire transfer of answer, but only between two operations of reading, if after this time client will take nothing, then nginx is shutting down the connection.

## sendfile

**syntax:***sendfile [ on/off ]*

**default:***sendfile off*

**context:***http, server, location*

Directive activate or deactivate the usage of `sendfile()` .

## server

**syntax:***server {...}*

**default:***no*

**context:***http*

Directive assigns configuration for the virtual server.

There is no separation of IP and name-based (the `Host` header of the request) servers.

Instead, the directive `listen` is used to describe all addresses and ports on which incoming connections can occur, and in directive `server_name` indicate all names of the server.

## server\_name

**syntax:***server\_name name [...]*

**default:***server\_name hostname*

**context:***server*

This directive performs two actions:

- Compares the `Host` header of the incoming HTTP request against the `server { ... }` blocks in the Nginx configuration files and selects the first one that matches. This is how **virtual servers**

are defined. Server names are processed in the following order:

1. full, static names
2. names with a wildcard at the start of the name — \*.example.com
3. names with a wildcard at the end of the name — [www.example.](#)
4. names with regular expressions

If there is no match, a [#server server { ... }] block in the configuration file will be used based on the following order:

1. the server block with a matching `listen` directive marked as `default`
  2. the first server block with a matching `listen` directive (or implicit `listen 80;`)
- Sets the server name that will be used in HTTP redirects if `server_name_in_redirect` is set.

Example:

```
server {  
  
    server_name  example.com www.example.com;  
}
```

The first name becomes the basic name of server. By default the name of the machine (hostname) is used.

It is possible to use "\*" for replacing the first or the last part of the name:

```
server {  
    server_name  example.com *.example.com www.example.*;  
}
```

Two of the above given names can be combined into one:

```
server {  
    server_name  .example.com;  
}
```

It is also possible to use regular expressions in server names, prepending the name with a tilde "~" like so:

```
server {  
    server_name  www.example.com ~^www\d+\.example\.com$;  
  
}
```

The basic name of server is used in an HTTP redirects, if no `Host` header was in client request or that header does not match any assigned `server_name`. You can also use just `"` to force Nginx to use the `Host` header in the HTTP redirect (note that `"` cannot be used as the first name, but you can use a dummy name such as `"_"` instead):

```
server {
    server_name example.com *;
}
server {
    server_name _*;
}
```

Note that this has changed in 0.6.x and is now:

```
server {
    server_name _;
}
```

Since nginx 0.7.12, an empty server name is supported, to catch the requests without "Host" header:

```
server {
    server_name "";
}
```

## server\_name\_in\_redirect

**syntax:** `server_name_in_redirect on|off`

**default:** `server_name_in_redirect on`

**context:** `http, server, location`

If `server_name_in_redirect` is on, then Nginx will use the first value of the `server_name` directive for redirects. If `server_name_in_redirect` is off, then nginx will use the requested `Host` header.

## server\_names\_hash\_max\_size

**syntax:** `server_names_hash_max_size number`

**default:** `server_names_hash_max_size 512`

**context:** `http`



The maximum size of the server name hash tables. For more detail see the description of tuning the hash tables in Nginx Optimizations.

## server\_names\_hash\_bucket\_size

**syntax:***server\_names\_hash\_bucket\_size number*

**default:***server\_names\_hash\_bucket\_size 32/64/128*

**context:***http*

Directive assigns the size of basket in the hash-tables of the names of servers. This value by default depends on the size of the line of processor cache. For more detail see the description of tuning the hash tables in Nginx Optimizations.

## server\_tokens

**syntax:***server\_tokens on/off*

**default:***server\_tokens on*

**context:***http, server, location*

Whether to send the Nginx version number in error pages and `Server` header.

## tcp\_nodelay

**syntax:***tcp\_nodelay [on/off]*

**default:***tcp\_nodelay on*

**context:***http, server, location*

This directive allows or forbids the use of the socket option `TCP_NODELAY`. Only included in `keep-alive` connections.

You can read more about the `TCP_NODELAY` socket option here.

## tcp\_nopush

**syntax:***tcp\_nopush [on/off]*

**default:***tcp\_nopush off*

**context:***http, server, location*

This directive permits or forbids the use of the socket options `TCP_NOPUSH` on FreeBSD or `TCP_CORK` on Linux. This option is only available when using `sendfile`.

Setting this option causes nginx to attempt to send it's HTTP response headers in one packet on Linux and FreeBSD 4.x. [Read More About TcpNopush](#)

## try\_files

**syntax:** *try\_files file1 [file2 ... fileN] fallback*

**default:** *none*

**context:** *location*

This directive tells Nginx to test for each file's existence, and use the first found file as the URI. If none of the files are found, then the location `fallback` is called ("fallback" can be any name).

`fallback` is a required parameter. It can be a named location or any *guaranteed* URI.

Example:

```
location / {  
  
    try_files index.html index.htm @fallback;  
}  
  
location @fallback {  
    root /var/www/error;  
    index index.html;  
  
}
```

## types

**syntax:** *types {...}*

**context:** *http, server, location*

Directive assigns the correspondence of expansion and MIME-types of answers. To one MIME-type can correspond several expansions. By default it is used these correspondences:

```
types {  
  
    text/html    html;  
    image/gif    gif;  
    image/jpeg   jpg;  
  
}
```

The sufficiently complete table of mappings is included and is located in the file `conf/mime.types`.

So that for that determined location's for all answers would reveal MIME- type

`application/octet-stream`, it is possible to use the following:

```
location /download/ {
    types        {}

    default_type application/octet-stream;
}
```

## 变量

The core module supports built-in variables, whose names correspond with the names of variables in Apache.

First of all, there are the variables, which represent the lines of the title of the client request, for example, `$http_user_agent`, `$http_cookie`, and so forth.

Furthermore, there are other variables:

### `$arg_PARAMETER`

This variable contains the value of the `GET` request variable `PARAMETER` if present in the query string

### `$args`

This variable is equal to arguments in the line of request;

### `$binary_remote_addr`

The address of the client in binary form;

### `$body_bytes_sent`

(undocumented)

### `$content_length`

This variable is equal to line `Content-Length` in the header of request;

### `$content_type`

This variable is equal to line `Content-Type` in the header of request;

### `$cookie_COOKIE`

The value of the cookie `COOKIE`;

## \$document\_root

This variable is equal to the value of directive `root` for the current request;

## \$document\_uri

The same as `$uri`.

## \$host

This variable is equal to line `Host` in the header of request or name of the server processing the request if the `Host` header is not available.

## \$http\_HEADER

The value of the HTTP header `HEADER` when converted to lowercase and with 'dashes' converted to 'underscores', e.g. `$http_user_agent`, `$http_referer...`;

## \$is\_args

Evaluates to "?" if `$args` is set, "" otherwise.

## \$limit\_rate

This variable allows limiting the connection rate.

## \$query\_string

The same as `$args`.

## \$remote\_addr

The address of the client.

## \$remote\_port

The port of the client;

## \$remote\_user

This variable is equal to the name of user, authenticated by the Auth Basic Module;

## \$request\_filename

This variable is equal to path to the file for the current request, formed from directives `root` or `alias` and URI request;

## \$request\_body

This variable(0.7.58+) contains the body of the request. The significance of this variable appears in locations with directives `proxy_pass` or `fastcgi_pass`.

## \$request\_body\_file

Client request body temporary filename;

## \$request\_completion

(undocumented)

## \$request\_method

This variable is equal to the method of request, usually `GET` or `POST`.

## \$request\_uri

This variable is equal to the complete initial URI together with the arguments;

## \$scheme

The HTTP scheme (i.e. `http`, `https`). Evaluated only on demand, for example:

```
rewrite ^(.+)$ $scheme://example.com$1 redirect;
```

## \$server\_addr

Equal to the server address. As a rule, for obtaining the value of this variable is done one system call. In order to avoid system call, it is necessary to indicate addresses in directives `listen` and to use parameter `bind`.

## \$server\_name

The name of the server.

## \$server\_port

This variable is equal to the port of the server, to which the request arrived;

## \$server\_protocol

This variable is equal to the protocol of request, usually this `HTTP/1.0` or `HTTP/1.1`.

## \$uri

This variable is equal to current URI in the request, it can differ from initial, for example by internal redirects, or with the use of [index](#) it is file with internal redirects.

## References

[Original Documentation](#)

# HttpIndex模块

## HttpIndex模块

这个模块提供一个简单方法来实现在轮询和客户端IP之间的后端服务器负荷平衡。

配置范例：

```
upstream backend {
    server backend1.example.com weight=5;
    server backend2.example.com:8080;
    server unix:/tmp/backend3;
}

server {
    location / {
        proxy_pass http://backend;
    }
}
```

配置指导

## ip\_hash

syntax: ip\_hash

default: none

context: upstream

This directive causes requests to be distributed between upstreams based on the IP-address of the client. The key for the hash is the class-C network address of the client. This method guarantees that the client request will always be transferred to the same server. But if this server is considered inoperative, then the request of this client will be transferred to another server. This gives a high probability clients will always connect to the same server.

范例：

```
upstream backend {
    ip_hash;
    server backend1.example.com;
    server backend2.example.com;
    server backend3.example.com down;
    server backend4.example.com;
}
```

## server

syntax: server name [parameters]

default: none

context: upstream

# HttpAccess模块

## HttpAccess模块

此模块提供了一个简易的基于主机的访问控制。

ngx\_http\_access\_module 模块使有可能对特定IP客户端进行控制。规则检查按照第一次匹配的顺序

### 配置样例

```
location / {
    : deny 192.168.1.1;
    : allow 192.168.1.0/24;
    : allow 10.1.1.0/16;
    : deny all;
}
```

在上面的例子中,仅允许网段 10.1.1.0/16 和 192.168.1.0/24中除 192.168.1.1之外的ip访问。

当执行很多规则时,最好使用 ngx\_http\_geo\_module 模块。

## 指导

- [#放行 放行]
- [#禁止 禁止]

## 放行

syntax: allow [ address | CIDR | all ]

**default:***no*

**context:***http, server, location, limit\_except*

以上描述的网络地址有权直接访问

## 禁止

**syntax:***deny [ address | CIDR | all ]*

**default:***no*

**context:***http, server, location, limit\_except*

以上描述的网络地址拒绝访问

## References

[Original Documentation](#)

# HttpAuthBasic模块

## HttpAuthBasic模块

该模块可以使你使用用户名和密码基于 HTTP 基本认证方法来保护你的站点或其部分内容。

### 实例配置

```
location / {
    : auth_basic          "Restricted";
    : auth_basic_user_file conf/htpasswd;
}
```

## 指令

- [#auth\_basic auth\_basic]
- [#auth\_basic\_user\_file auth\_basic\_user\_file]

## auth\_basic

**语法 :** *auth\_basic [ text|off ]*

**默认值 :** *auth\_basic off*

**作用域 :** *http, server, location, limit\_except*



该指令包含用于 HTTP 基本认证的测试名和密码。分配的参数用于认证领域。值 "off" 可以使其覆盖来自上层指令的继承性。

## auth\_basic\_user\_file

语法 : *auth\_basic\_user\_file the\_file*

默认值 : *no*

作用域 : *http, server, location, limit\_except*

该指令为某认证领域指定 htpasswd 文件名。

文件格式类似于下面的内容 :

```
用户名:密码  
用户名2:密码2:注释  
用户名3:密码3
```

密码必须使用函数 crypt(3) 加密。你可以使用来自 Apache 的 htpasswd 工具来创建密码文件。

你也可以使用perl 创建密码文件,pw.pl 的内容 :

```
#!/usr/bin/perl  
use strict;  
  
my $pw=$ARGV[0];  
print crypt($pw,$pw)."\n";
```

然後執行

```
chmod +x pw.pl  
./pw.pl password  
papAq5PwY/QQM
```

papAq5PwY/QQM 就是password 的crypt()密码

## 参考

[原始文档](#)

# HttpAutoindex模块

## HttpAutoindex模块

此模块用于自动生成目录列表。

`ngx_http_autoindex_module`只在 `ngx_http_index_module`模块未找到索引文件时发出请求。

## 配置实例

```
location / {  
    : autoindex on;  
}
```

## 指导

- `[#autoindex autoindex]`
- `[#autoindex_exact_size autoindex_exact_size]`
- `[#autoindex_localtime autoindex_localtime]`

## autoindex

**syntax:** *autoindex [ on/off ]*

**default:** *autoindex off*

**context:** *http, server, location*

激活/关闭自动索引

## autoindex\_exact\_size

**syntax:** *autoindex\_exact\_size [ on/off ]*

**default:** *autoindex\_exact\_size on*

**context:** *http, server, location*

设定索引时文件大小的单位(B,KB, MB 或 GB)

## autoindex\_localtime

**syntax:** *autoindex\_localtime [ on/off ]*

**default:** *autoindex\_localtime off*

**context:** *http, server, location*

开启以本地时间来显示文件时间的功能。默认为关（GMT时间）

## 参考

# Browser模块

## Browser模块

### 摘要

This module creates variables, the values of which depend on the request header "User-agent":

本模块的变量基于请求头(header)中的"User-agent":

- `$modern_browser` - is equal to the value, assigned by directive `modern_browser_value`, if browser is identified as an **modern** browser;
- `$ancient_browser` - 当等于指定给`modern_browser_value`的浏览器时，这个浏览器被认定为新版的浏览器;
- `$ancient_browser` - is equal to the value, assigned by directive `ancient_browser_value`, if browser is identified as an **old** browser;
- `$ancient_browser` - 当等于指定给`ancient_browser_value`的浏览器时，这个浏览器被认定为老版的浏览器;
- `$msie` - is equal **1**, if browser is identified as MSIE with any version;
- `$msie` - 当浏览器为MSIE的任何版本时，这个值等于1;

If you don't need this module add `--without-http_browser_module` parameter to the `./configure` call, at compile time.

如果不需要这个模块时，在编译的时候加上 `--without-http_browser_module`.

Example configuration 例如配置

Selection of the index file:

选择索引文件:

```
modern_browser_value "modern.";

modern_browser msie 5.5;
modern_browser gecko 1.0.0;
modern_browser opera 9.0;
modern_browser safari 413;

modern_browser konqueror 3.0;
index index.${modern_browser}html index.html;
```

Redirect for the old browsers:

定义老的浏览器:

```
modern_browser msie 5.0;

modern_browser gecko 0.9.1;
modern_browser opera 8.0;
modern_browser safari 413;
modern_browser konqueror 3.0;

modern_browser unlisted;
ancient_browser Links Lynx Netscape4;

if ($ancient_browser){
    rewrite ^ /ancient.html;
}
```

## 指令

### ancient\_browser

**syntax:***ancient\_browser line [ line... ]*

**default:***no*

**context:***http, server, location*

Directive assigns the substrings, during presence of which in the line "User-agent", browser are considered as **old**.

Special line "netscape4" corresponds to regular expression "^Mozilla/[1-4]".

### ancient\_browser\_value

**syntax:***ancient\_browser\_value line*

**default:***ancient\_browser\_value 1*

**context:***http, server, location*

Directive assigns value for the variables \$ancient\_browser.

定义 \$ancient\_browser的变量值.

### modern\_browser

**syntax:***modern\_browser browser version/unlisted*

**default:***no*

**context:***http, server, location*

Directive assigns which version of the browser is to be considered as **modern**.

As browser you can assign the values msie, gecko (Mozilla-based browsers) opera, safari, konqueror.

Of versions it is possible to assign in size X, X.X, X.X.X, or X.X.X.X. maximum values for each of their sizes respectively - 4000, 4000.99, 4000.99.99, and 4000.99.99.99.

Special value "unlisted" indicates to consider modern browser, not described by the modern\_browser and ancient\_browser directives.

Otherwise the neperechislenny browser will be considered become obsolete.

If the headers do not contain "User-agent", the browser is considered neperechislennym.

## modern\_browser\_value

**syntax:***modern\_browser\_value line*

**default:***modern\_browser\_value 1*

**context:***http, server, location*

Directive assigns value for the variables \$modern\_browser.

定义\$modern\_browser的变量值.

## References

[Original Documentation](#) new since 26.09.2006 version 0.4.3

# Charset模块

## Charset妯"激

This module adds the text encoding to the "Content-Type indicated" response-header.

Furthermore, module can reencode data of one encoding into another. It is necessary to note that the reencoding is accomplished only in one direction - from the server to the client, and only one-byte encodings can be reencoded.

Example configuration:

```
charset    windows-1251;  
source_charset koi8-r;
```

## 鑄困护

### charset

**syntax:***charset encoding|off*

**default:***charset off*

**context:***http, server, location, if in location*

The directive `charset` adds the line "Content-Type" into response-header with indicated encoding. If this encoding is differed from that indicated in directive `source_charset`, then reencoding is carried out. The parameter "off" deactivate the insertation of the line "Content-Type" in the response-header.

### charset\_map

**syntax:***charset\_map encoding1 encoding2 {...}*

**default:***no*

**context:***http, server, location*

The directive `charset_map` describes the table of reencoding from one encoding into another. A table for the inverse reencoding is created using the same data. The codes of symbols are assigned in hexadecimal form. If no recorded symbols are in the range 80-FF they will be substituted with '?'.  
Example usage:

```
charset_map koi8-r windows-1251 {
    C0 FE ; # small yu
    C1 E0 ; # small a

    C2 E1 ; # small b
    C3 F6 ; # small ts
    # ...
}
```

The complete table of conversion from koi8-r into Windows-1251 is distributed with nginx and is located in file `conf/koi-win`.

### override\_charset

**syntax:***override\_charset on|off*

**default:***override\_charset off*

**context:***http, server, location, if in location*

This directive determines, to carry out reencoding for the response, obtained from the proxied server or from FastCGI-server, if in the response-header a "Content-Type" header already is. If reencoding is permitted, then as the initial encoding the encoding, indicated in the obtained answer, is used.

It is necessary to note that if the response was obtained in the subquery then, independent of directive `override_charset`, is always carried out reencoding from encoding of the response into encoding of basic demand.

## source\_charset

**syntax:***source\_charset encoding*

**default:***no*

**context:***http, server, location, if in location*

The directive `source_charset` assigns the initial encoding of response. If this encoding is differed from that indicated in directive `charset`, then reencoding is carried out.

## References

[Original Documentation](#)

# HttpEmptyGif模块

---

## HttpEmptyGif模块

本模块在内存中常驻了一个 1x1 的透明 GIF 图像，可以被非常快速的调用。

示例：

```
location = /_gif {
: empty_gif;
}
```

## 指令

- `[#empty_gif empty_gif]`

## empty\_gif >

语法：*empty\_gif*

默认值：*n/a*

作用域 *location*

## 参见

[原始文档](#)

# HttpFcgi模块

## HttpFcgi模块

这个模块允许Nginx 与FastCGI 进程交互，并通过传递参数来控制FastCGI 进程工作。

配置实例:

```
location / {
    fastcgi_pass localhost:9000;
    fastcgi_index index.php;

    fastcgi_param SCRIPT_FILENAME /home/www/scripts/php$fastcgi_script_name;
    fastcgi_param QUERY_STRING $query_string;
    fastcgi_param REQUEST_METHOD $request_method;
    fastcgi_param CONTENT_TYPE $content_type;
    fastcgi_param CONTENT_LENGTH $content_length;
}
```

语法：

## fastcgi\_buffers

syntax: fastcgi\_buffers the\_number is\_size;

default: fastcgi\_buffers 8 4k/8k;

context: http, server, location

该指令集设置缓冲区的数量和大小，用于缓存从 FastCGI Server 接收到的数据。默认情况下，一个缓冲区的大小相当于一个页面的大小。根据平台的不同设置为4K/8K

## fastcgi\_buffer\_size

syntax: fastcgi\_buffer\_size the\_size



default: fastcgi\_buffer\_size 4k/8k

context: http, server, location

This directive sets the buffersize, into which will be read the first part of the response, obtained from the fastcgi server.

In this part of response the small response-header is located, as a rule.

By default, the buffersize is equal to the size of one buffer in directive fastcgi\_buffers; however, it is possible to set it to less.

## fastcgi\_cache

syntax: fastcgi\_cache zone;

default: none

context: http, server, location

设置缓存在共享内存中的名称。一块区域可以被用于不同的地方。

## fastcgi\_cache\_key

syntax: fastcgi\_cache\_key line ;

default: none

context: http, server, location

设置缓存的key, 例:

```
fastcgi_cache_key localhost: 9000 $ request_uri;
```

## fastcgi\_cache\_methods

syntax: fastcgi\_cache\_methods [GET HEAD POST];

default: fastcgi\_cache\_methods GET HEAD;

context: main,http,location

GET/HEAD is syntax sugar, i.e. you can not disable GET/HEAD even if you set just

```
fastcgi_cache_methods POST;
```

## fastcgi\_cache\_min\_uses

syntax: fastcgi\_cache\_min\_uses n

default: fastcgi\_cache\_min\_uses 1

context: http, server, location

TODO: Description.

## fastcgi\_cache\_path

syntax: fastcgi\_cache\_path /path/to/cache [levels=m:n keys\_zone=name:time inactive=time clean\_time=time]

default: none

context: http, server, location

TODO: Description.

## fastcgi\_cache\_use\_stale

syntax: fastcgi\_cache\_use\_stale [updating|error|timeout|invalid\_header|http\_500]

default: fastcgi\_cache\_use\_stale off;

context: http, server, location

TODO: Description.

## fastcgi\_cache\_valid

syntax: fastcgi\_cache\_valid [http\_error\_code|time]

default: none

context: http, server, location

TODO: Description.

## fastcgi\_index

syntax: fastcgi\_index file

default: none

context: http, server, location

The name of the file which will be appended to the URI and stored in the variable `$fastcgi_script_name` if URI concludes with a slash.

## fastcgi\_hide\_header

syntax: fastcgi\_hide\_header name

context: http, server, location

默认情况下Nginx 不会从FastCGI 进程里给客户端发送"Status" 和"X-Accel-..." 消息头。这个指令可以用来掩饰别的headers 。

如果需要"Status" 和"X-Accel-..." 消息头，那就需要使用这个指令让FastCGI 强制发送消息头给客户端。

## fastcgi\_ignore\_client\_abort

syntax: fastcgi\_ignore\_client\_abort on|off

default: fastcgi\_ignore\_client\_abort off

context: http, server, location

这个指令用来决定忽略用户取消的请求。

## fastcgi\_intercept\_errors

syntax: fastcgi\_intercept\_errors on|off

default: fastcgi\_intercept\_errors off

context: http, server, location

这个指令用来决定是否要把客户端转向4xx和5xx错误页，或允许Nginx自动指定错误网页。

注意：你需要在此明确错误页，它才是有用的。Igor 曾说：“如果没有定制的处理机制，Nginx不会拦截一个没有缺省页的错误。Nginx 只会拦截一些小的错误，放过其他一些。

## fastcgi\_param

```
syntax: fastcgi_param parameter value
```

```
default: none
```

```
context: http, server, location
```

该指令指定的参数,将被传递给FastCGI-server。

它可能使用字符串、变量及其它们的组合来作为参数值。如果不在此制定参数，它就会继承外层设置；如果在此设置了参数，将清除外层相关设置，仅启用本层设置。

下面是一个例子,对于PHP来说的最精简的必要参数：

```
fastcgi_param SCRIPT_FILENAME /home/www/scripts/php$fastcgi_script_name;
fastcgi_param QUERY_STRING    $query_string;
```

参数SCRIPT\_FILENAME 是PHP 用来确定执行脚本的名字，而参数QUERY\_STRING 是它的一个子参数。

如果要处理POST,那么这三个附加参数是必要的：

```
fastcgi_param REQUEST_METHOD $request_method;
fastcgi_param CONTENT_TYPE   $content_type;
fastcgi_param CONTENT_LENGTH $content_length;
```

如果PHP 在编译时使用了--enable-force-cgi-redirect选项，设置参数REDIRECT\_STATUS 的值为200就是必须的了。

```
fastcgi_param REDIRECT_STATUS 200;
```

## Geo模块

### Geo模块

#### 摘要

This module creates variables, whose values depend on the IP-address of the client.

Example configuration:

```
geo $geo {
    default      0;
    127.0.0.1/32  2;
    192.168.1.0/24 1;
    10.1.0.0/16   1;
}
```

# 指令

## geo

**syntax:** `geo [$ip_variable] $variable { ... }`

**default:** none

**context:** `http`

The directive describes the dependency of the value of a variable on the IP-address of a client. By default, the IP-address used for the lookup is `$remote_addr`, but since version 0.7.27 it is possible to specify which variable should be used.

```
geo $arg_remote_addr $geo {  
    ...;  
}
```

Addresses are assigned in the form CIDR. Furthermore, there are four special parameters:

Example of the description:

- `delete` – deletes the specified network (0.7.23).
- `default` - the value of variable, if the client address does not correspond to any assigned address. It is possible so to write instead of default `0.0.0.0/0`.
- `include` - text file with addresses and values information. Several files can be included like this.
- `proxy` - specifies the address of proxy server (0.8.7+). NEED MORE DESCRIPTION...
- `ranges` – specifies that the addresses specified are in the form of ranges (0.7.23). This directive must be the first.

```
geo $country {  
    default      no;  
    include      conf/geo.conf;  
    127.0.0.0/24 us;  
    127.0.0.1/32 ru;  
    10.1.0.0/16  ru;  
    192.168.1.0/24 uk;  
}
```

In the file `conf/geo.conf`:

```
10.2.0.0/16  ru;  
192.168.2.0/24 ru;
```

The value will be the the one with maximum agreement. For example, the IP address `127.0.0.1`

will get the value "ru", but not "us".

Example with ranges:

```
geo $country {
    ranges;
    default          no;
    127.0.0.0-127.0.0.0    us;
    127.0.0.1-127.0.0.1    ru;
    127.0.0.1-127.0.0.255  us;
    10.1.0.0-10.1.255.255  ru;
    192.168.1.0-192.168.1.255 uk;
}
```

## References

- [HWLoadbalancerCheckErrors](#)
- [Creating geo.conf From MaxMind GeoIP Country Database](#)
- [Original Documentation](#)

# HttpGzip模块

## HttpGzip模块

这个模块支持在线实时压缩输出数据流

### 使用范例

```
: gzip          on;
: gzip_min_length 1000;
: gzip_proxied   expired no-cache no-store private auth;
: gzip_types    text/plain application/xml;
```

内置变量 `$gzip_ratio` 可以获取到gzip的压缩比率

## 指令

- `[#gzip gzip]`
- `[#gzip_buffers gzip_buffers]`
- `[#gzip_comp_level gzip_comp_level]`
- `[#gzip_min_length gzip_min_length]`
- `[#gzip_http_version gzip_http_version]`
- `[#gzip_proxied gzip_proxied]`

- [#gzip\_types gzip\_types]

## gzip

语法: *gzip on/off*

默认值: *gzip off*

作用域: *http, server, location, if (x) location*

开启或者关闭gzip模块

## gzip\_buffers

语法: *gzip\_buffers number size*

默认值: *gzip\_buffers 4 4k/8k*

作用域: *http, server, location*

设置系统获取几个单位的缓存用于存储gzip的压缩结果数据流。例如 4 4k 代表以4k为单位，按照原始数据大小以4k为单位的4倍申请内存。4 8k 代表以8k为单位，按照原始数据大小以8k为单位的4倍申请内存。

如果没有设置，默认值是申请跟原始数据相同大小的内存空间去存储gzip压缩结果。

## gzip\_comp\_level

语法: *gzip\_comp\_level 1..9*

默认值: *gzip\_comp\_level 1*

作用域: *http, server, location*

gzip压缩比，1 压缩比最小处理速度最快，9 压缩比最大但处理最慢（传输快但比较消耗cpu）。

## gzip\_min\_length

语法: *gzip\_min\_length length*

默认值: *gzip\_min\_length 0*

作用域: *http, server, location*

设置允许压缩的页面最小字节数，页面字节数从header头中的Content-Length中进行获取。

默认值是0，不管页面多大都压缩。

建议设置成大于1k的字节数，小于1k可能会越压越大。即: *gzip\_min\_length 1024*

## gzip\_http\_version

语法:*gzip\_http\_version 1.0/1.1*

默认值:*gzip\_http\_version 1.1*

作用域:*http, server, location*

识别http的协议版本。由于早期的一些浏览器或者http客户端，可能不支持gzip自解压，用户就会看到乱码，所以做一些判断还是有必要的。注：21世纪都来了，现在除了类似于百度的蜘蛛之类的东西不支持自解压，99.99%的浏览器基本上都支持gzip解压了，所以可以不用设这个值,保持系统默认即可。

## gzip\_proxied

语法:*gzip\_proxied [off/expired/no-cache/no-store/private/no\_last\_modified/no\_etag/auth/any] ...*

默认值:*gzip\_proxied off*

作用域:*http, server, location*

Nginx作为反向代理的时候启用，开启或者关闭后端服务器返回的结果，匹配的前提是后端服务器必须要返回包含"Via"的 header头。

- off - 关闭所有的代理结果数据的压缩
- expired - 启用压缩，如果header头中包含 "Expires" 头信息
- no-cache - 启用压缩，如果header头中包含 "Cache-Control:no-cache" 头信息
- no-store - 启用压缩，如果header头中包含 "Cache-Control:no-store" 头信息
- private - 启用压缩，如果header头中包含 "Cache-Control:private" 头信息
- no\_last\_modified - 启用压缩,如果header头中不包含 "Last-Modified" 头信息
- no\_etag - 启用压缩,如果header头中不包含 "ETag" 头信息
- auth - 启用压缩，如果header头中包含 "Authorization" 头信息
- any - 无条件启用压缩

## gzip\_types

语法:*gzip\_types mime-type [mime-type ...]*

默认值:*gzip\_types text/html*

作用域:*http, server, location*

匹配MIME类型进行压缩，（ 无论是否指定 ）"text/html"类型总是会被压缩的。

注意：如果作为http server来使用，主配置文件中要包含文件类型配置文件



```
http
{
    include    conf/mime.types;
    .....
}
```

如果你希望压缩常规的文件类型，可以写成这个样子

```
http
{
: include    conf/mime.types;

: gzip on;
: gzip_min_length 1000;
: gzip_buffers 4 8k;
: gzip_http_version 1.1;
: gzip_types  text/plain application/x-javascript text/css text/html application/xml;

: .....
}
```

## References

[原始文档](#)

# HttpHeaders模块

## HttpHeaders模块

本模板可以设置HTTP报文的头标。

### 示例

```
: expires 24h;
: expires 0;
: expires -1;
: expires epoch;
: add_header Cache-Control private;
```

## 指令

- [#add\_header add\_header]
- [#expires expires]

## 增加头标

语法：`add_header name value`

默认值：`none`

作用域：`http, server, location`

当HTTP应答状态码为 200、204、301、302 或 304 的时候，增加指定的HTTP头标。

其中头标的值可以使用变量。

## expires

语法：`expires [time|epoch|max|off]`

默认值：`expires off`

作用域：`http, server, location`

使用本指令可以控制HTTP应答中的“Expires”和“Cache-Control”的头标，（起到控制页面缓存的作用）。

可以在time值中使用正数或负数。“Expires”头标的值将通过当前系统时间加上您设定的 time 值来获得。

`epoch` 指定“Expires”的值为 1 January, 1970, 00:00:01 GMT。

`max` 指定“Expires”的值为 31 December 2037 23:59:59 GMT，“Cache-Control”的值为10年。

`-1` 指定“Expires”的值为 服务器当前时间 -1s,即永远过期

“Cache-Control”头标的值由您指定的时间来决定：

- 负数：`Cache-Control: no-cache`
- 正数或零：`Cache-Control: max-age = #`，# 为您指定时间的秒数。

"off" 表示不修改“Expires”和“Cache-Control”的值

## References

[原始文档](#)

## HttpIndex模块

## HttpIndex模块

语法:*index file [file...]*

默认值:*index index.html*

作用域:*http, server, location*

该指令用来指定用来做默认文档的文件名，可以在文件名处使用变量。如果您指定了多个文件，那么将按照您指定的顺序逐个查找。可以在列表末尾加上一个绝对路径名的文件。

示例:

```
index index.$geo.html index.0.html /index.html;
```

## 参见

[原始文档](#)

# HttpReferer模块

---

# HttpLimit zone

---

## HttpLimit zone

本模块可以针对条件，进行会话的并发连接数控制。（例如：限制每个IP的并发连接数。）

配置示例

```
http {
: limit_zone one $binary_remote_addr 10m;

: ...

: server {

: ...

: location /download/ {
: limit_conn one 1;
: }
```

## 指令

- [#limit\_zone limit\_zone]
- [#limit\_conn limit\_conn]

## limit\_zone

语法：*limit\_zone zone\_name \$variable the\_size*

默认值：*no*

作用域：*http*

本指令定义了一个数据区，里面记录会话状态信息。

*\$variable* 定义判断会话的变量；*the\_size* 定义记录区的总容量。

例子：

```
limit_zone one $binary_remote_addr 10m;
```

定义一个叫“one”的记录区，总容量为 10M，以变量 *\$binary\_remote\_addr* 作为会话的判断基准（即一个地址一个会话）。

您可以注意到了，在这里使用的是 *\$binary\_remote\_addr* 而不是 *\$remote\_addr*。

*\$remote\_addr* 的长度为 7 至 15 bytes，会话信息的长度为 32 或 64 bytes。而 *\$binary\_remote\_addr* 的长度为 4 bytes，会话信息的长度为 32 bytes。

当区的大小为 1M 的时候，大约可以记录 32000 个会话信息（一个会话占用 32 bytes）。

## limit\_conn

语法：*limit\_conn zone\_name the\_size*

默认值：*no*

作用域：*http, server, location*

指定一个会话最大的并发连接数。当超过指定的最大并发连接数时，服务器将返回 "Service unavailable" (503)。

例子：

```
limit_zone one $binary_remote_addr 10m;

: server {
: location /download/ {
: limit_conn one 1;
: }
```

定义一个叫“one”的记录区，总容量为 10M，以变量 `$binary_remote_addr` 作为会话的判断基准（即一个地址一个会话）。限制 `/download/` 目录下，一个会话只能进行一个连接。简单点，就是限制 `/download/` 目录下，一个IP只能发起一个连接，多过一个，一律503。

## References

[原始文档](#)

# HttpLimitRequest模块

## HttpLimitRequest模块“激

This module allows you to limit the number of requests for a given session, or as a special case, with one address.

Restriction done using leaky bucket.

## Example Configuration

```
http {
    limit_req_zone $binary_remote_addr zone=one:10m rate=1r/s;

    ...

    server {
        ...

        location /search/ {
            limit_req zone=one burst=5;
        }
    }
}
```

## 鏊困护

**Syntax:** `limit_req_zone $session_variable zone=name_of_zone:size rate=rate`

**Default:** `none`

**Context:** `http`

The directive describes the area, which stores the state of the sessions. The values of the sessions is determined by the given variable. Example of usage:

```
limit_req_zone $binary_remote_addr zone=one:10m rate=1r/s;
```

In this case, the session state is allocated 10MB as a zone called "one", and the average speed of queries for this zone is limited to 1 request per second.

The sessions are tracked per-user in this case, but note that instead of the variable `$remote_addr`, we've used the variable `$binary_remote_addr`, reducing the size of the state to 64 bytes. A 1 MB zone can hold approximately 16000 states of this size.

The speed is set in requests per second or requests per minute. The rate must be an integer, so if you need to specify less than one request per second, say, one request every two seconds, you would specify it as "30r/m".

**Syntax:** `limit_req zone=zone burst=burst [nodelay]`

**Default:** `none`

**Context:** `http, server, location`

The directive specifies the zone (**zone**) and the maximum possible bursts of requests (**burst**). If the rate exceeds the demands outlined in the zone, the request is delayed, so that queries are processed at a given speed. Excess requests are delayed until their number does not exceed a specified number of bursts. In this case the request is completed the code "Service unavailable" (503). By default, the burst is zero.

For example, the directive

```
limit_req_zone $binary_remote_addr zone=one:10m rate=1r/s;

server {
    location /search/ {
        limit_req zone=one burst=5;
    }
}
```

allows a user no more than 1 request per second on average, with bursts of no more than 5 queries. If the excess requests within the limit burst delay are not necessary, you should use the `nodelay`:

```
limit_req zone=one burst=5 nodelay;
```

## HttpLog模块

# HttpLog模块

ngx\_http\_log\_module

实例

```
log_format gzip '$remote_addr - $remote_user [$time_local] '
: "$request" $status $bytes_sent '
: "$http_referer" "$http_user_agent" "$gzip_ratio";
access_log /spool/logs/nginx-access.log gzip buffer=32k;
```

## 指令

- access\_log
- log\_format

## access\_log

语法 : *access\_log path [format [buffer=size / off ] 默认值 : access\_log log/access.log combined*

作用域 : *http, server, location*

指令 access\_log 指派路径、格式和缓存大小。参数 "off" 将清除当前级别的所有 access\_log 指令。如果未指定格式，则使用预置的 "combined" 格式。缓存不能大于能写入磁盘的文件的最大大小。在 FreeBSD 3.0-6.0，缓存大小无此限制。

## log\_format

语法 : *log\_format name format [format ...]*

默认值 : *log\_format combined "..."*

作用域 : *httpserver*

Directive log\_format describes the format of a log entry. Besides general variables in the format it is possible to use variables which exist only at the moment of record into the log:

- \$body\_bytes\_sent, the number of bytes, transmitted to client minus the response headers, variable is compatible with parameter %B of module Apache's mod\_log\_config (this was called \$apache\_bytes\_sent, before version 0.3.10)
- \$bytes\_sent, the number of bytes, transmitted to client
- \$connection, the number of connection
- \$msec, the time with an accuracy to microseconds at the moment of the log entry
- \$pipe, "p" if request was pipelining
- \$request\_length, the length of the body of the request

- \$request\_time, the time of working on request in seconds
- \$status, status of answer
- \$time\_local, local time into common log format.

The headers, transmitted to client, begin from the prefix "sent\_http\_", for example, \$sent\_http\_content\_range.

In the configuration there is always a predetermined format "combined":

```
log_format combined '$remote_addr - $remote_user [$time_local] '
: "$request" $status $apache_bytes_sent '
: "$http_referer" "$http_user_agent";
```

## 参考

[原始文档](#)

# map

## map

This module allows you to classify, or map a set of values into a different set of values and store the result in a variable.

Example:

```
map $http_host $name {
    hostnames;

    default      0;

    example.com  1;
    *.example.com 1;
    test.com     2;
    *.test.com   2;
    .site.com    3;
}
```

One use for this would be to use a mapping in place of writing lots of server/location directives or redirects:



```
map $uri $new {
    default    http://www.domain.com/home/;

    /aa       http://aa.domain.com/;
    /bb       http://bb.domain.com/;
    /john     http://my.domain.com/users/john/;
}

server {
    server_name www.domain.com;
    rewrite ^ $new redirect;
}
```

## 指令

### map

**syntax:** *map \$var1 \$var2 { ... }*

**default:** *none*

**context:** *http*

**map** defines the mapping table which will be used to set a variable. There are three special parameters:

- **default** — defines the value to be used where no match is found.
- **hostnames** — it allows for an easier matching of values like host names, names with a starting dot may match exact host names and host names ending with the value, for example:

```
*.example.com 1;
```

Instead of two entries

```
example.com 1;
*.example.com 1;
```

we can use only one

```
.example.com 1;
```

- **include** — include values from a file. Multiple includes may be used.

### map\_hash\_max\_size

**syntax:***map\_hash\_max\_size number*

**default:***map\_hash\_max\_size 2048*

**context:***http*

The directive sets the maximum size of a hash table to hold the variable map. For more details see the descriptions of hash settings [Optimization section](#) .

## map\_hash\_bucket\_size

**syntax:***map\_hash\_bucket\_size n*

**default:***map\_hash\_bucket\_size 32/64/128*

**context:***http*

The directive sets the maximum size in a hash table to map variables. The default value depends on the size of the cache line processor. More see in the descriptions of hash settings in the [Optimization section](#) .

## References

[Original Documentation](#)

# Memcached

---

## Memcached

你可以利用本模块来进行简单的缓存以提高系统效率。本模块计划在未来进行扩展。

### 配置示例

```
server {
: location / {
: set $memcached_key $uri;
: memcached_pass name:11211;
: default_type text/html;
: error_page 404 = /fallback;
: }

: location = /fallback {
: proxy_pass backend;
: }
}
```

## 指令

- [#memcached\_pass memcached\_pass]
- [#memcached\_connect\_timeout memcached\_connect\_timeout]
- [#memcached\_send\_timeout memcached\_send\_timeout]
- [#memcached\_read\_timeout memcached\_read\_timeout]
- [#memcached\_buffer\_size memcached\_buffer\_size]
- [#memcached\_next\_upstream memcached\_next\_upstream]

## 变量

- \$memcached\_key

## memcached\_pass

语法 : *memcached\_pass* [ *name:port* ]

默认值 : *none*

作用域 : *http, server, location*

The backend should set the data in memcached. The memcached key is "/uri?args".

Since 0.5.9 the memcached key is now in `$memcached_key`.

## memcached\_connect\_timeout

语法 : *memcached\_connect\_timeout* [ *time* ]

默认值 : *60000*

作用域 : *http, server, location*

The timeout for connecting to memcached, in milliseconds.

## memcached\_read\_timeout

语法 : *memcached\_read\_timeout* [ *time* ]

默认值 : *60000*

作用域 : *http, server, location*

The timeout for reading from memcached, in milliseconds.

## memcached\_send\_timeout

语法 : *memcached\_send\_timeout* [ *time* ]

默认值：60000

作用域：http, server, location

The timeout for sending to memcached, in milliseconds.

## memcached\_buffer\_size

语法：memcached\_buffer\_size [ size ]

默认值：see *getpagesize(2)*

作用域：http, server, location

The recv/send buffer size, in bytes.

## memcached\_next\_upstream

语法：memcached\_next\_upstream [ error | timeout | invalid\_response | not\_found | off ]

默认值：error timeout

作用域：http, server, location

Which failure conditions should cause the request to be forwarded to another upstream server?

Applies only when the value in memcached\_pass is an upstream with two or more servers.

# HttpProxy模块

---

## HttpProxy模块

This module makes it possible to transfer requests to another server. 此模块专伺将请求导向其它服务.

It is an HTTP/1.0 proxy without the ability for keep-alive requests yet. 这是种 HTTP/1.0 版本的无请求保持代理.

(As a result, backend connections are created and destroyed on every request.) Nginx talks HTTP/1.1 to the browser and HTTP/1.0 to the backend server. As such it handles keep-alive to the browser.

(因为每个请求都是在后台连接中创建和销毁的) Nginx 和浏览器使用 HTTP/1.1 进行对话，而在后台服务中使用 HTTP/1.0;

### 示例

```
location / {
    : proxy_pass      http://localhost:8000;
    : proxy_set_header X-Real-IP $remote_addr;
}
```

注意一点,当使用HTTP PROXY 模块时(或者甚至是使用FastCGI时),用户的整个请求会在nginx中缓冲直至传送给后端被代理的服务器.因此,上传进度的测算就会运作得不正确,如果它们通过测算后端服务器收到的数据来工作的话

## 定向器. Directives

- [#proxy\_buffer\_size proxy\_buffer\_size]
- [#proxy\_buffering proxy\_buffering]
- [#proxy\_buffers proxy\_buffers]
- [#proxy\_busy\_buffers\_size proxy\_busy\_buffers\_size]
- [#proxy\_connect\_timeout proxy\_connect\_timeout]
- [#proxy\_headers\_hash\_bucket\_size proxy\_headers\_hash\_bucket\_size]
- [#proxy\_headers\_hash\_max\_size proxy\_headers\_hash\_max\_size]
- [#proxy\_hide\_header proxy\_hide\_header]
- [#proxy\_ignore\_client\_abort proxy\_ignore\_client\_abort]
- [#proxy\_intercept\_errors proxy\_intercept\_errors]
- [#proxy\_max\_temp\_file\_size proxy\_max\_temp\_file\_size]
- [#proxy\_method proxy\_method]
- [#proxy\_next\_upstream proxy\_next\_upstream]
- [#proxy\_pass proxy\_pass]
- [#proxy\_pass\_header proxy\_pass\_header]
- [#proxy\_pass\_request\_body proxy\_pass\_request\_body]
- [#proxy\_pass\_request\_headers proxy\_pass\_request\_headers]
- [#proxy\_redirect proxy\_redirect]
- [#proxy\_read\_timeout proxy\_read\_timeout]
- [#proxy\_redirect\_errors proxy\_redirect\_errors]
- [#proxy\_send\_lowat proxy\_send\_lowat]
- [#proxy\_send\_timeout proxy\_send\_timeout]
- [#proxy\_set\_body proxy\_set\_body]
- [#proxy\_set\_header proxy\_set\_header]
- [#proxy\_store proxy\_store]
- [#proxy\_store\_access proxy\_store\_access]
- [#proxy\_temp\_file\_write\_size proxy\_temp\_file\_write\_size]
- [#proxy\_temp\_path proxy\_temp\_path]
- [#proxy\_upstream\_fail\_timeout proxy\_upstream\_fail\_timeout]

- [#proxy\_upstream\_max\_fails proxy\_upstream\_max\_fails]

## 参数.Variables

- [#var\_proxy\_host var\_proxy\_host]
- [#var\_proxy\_port var\_proxy\_port]
- [#var\_proxy\_add\_x\_forwarded\_for var\_proxy\_add\_x\_forwarded\_for]
- [#var\_proxy\_remote\_addr var\_proxy\_remote\_addr]

## proxy\_buffer\_size

语法:*proxy\_buffer\_size the\_size*

默认值:*proxy\_buffer\_size 4k/8k*

上下文:*http, server, location*

该指令设置缓冲区大小,从被代理的后端服务器取得的响应内容,会先读取放置到这里.

小的响应header通常位于这部分响应内容里边.

默认来说,该缓冲区大小等于指令 `proxy_buffers` 所设置的;但是,你可以把它设置得更小.

## proxy\_buffering

语法:*proxy\_buffering on/off*

默认值:*proxy\_buffering on*

上下文:*http, server, location*

该指令开启从后端被代理服务器的响应内容缓冲.

如果缓冲区开启,nginx假定被代理的后端服务器会以最快速度响应,并把内容保存在由指令 `proxy_buffer_size` 和 `proxy_buffers` 指定的缓冲区里边.

如果响应内容无法放在内存里边,那么部分内容会被写到磁盘上.

如果缓冲区被关闭了,那么响应内容会按照获取内容的多少立刻同步传送到客户端

nginx不尝试计算被代理服务器整个响应内容的大小,nginx能从服务器接受的最大数据,是由指令 `proxy_buffer_size` 指定的.

## proxy\_buffers

语法:*proxy\_buffers the\_number is\_size;*

默认值:*proxy\_buffers 8 4k/8k;*

上下文:*http, server, location*

该指令设置缓冲区的大小和数量,从被代理的后端服务器取得的响应内容,会放置到这里. 默认情况下,一个缓冲区的大小等于页面大小,可能是4K也可能是8K,这取决于平台

## proxy\_busy\_buffers\_size

语法:*proxy\_busy\_buffers\_size size;*

默认值:*proxy\_busy\_buffers\_size proxy\_buffer\_size \* 2;*

上下文:*http, server, location, if*

TODO: Description.

## proxy\_connect\_timeout

语法:*proxy\_connect\_timeout timeout\_in\_seconds*

上下文:*http, server, location*

This directive assigns a timeout for the connection to the proxyserver. This is not the time until the server returns the pages, this is the [#proxy\_read\_timeout proxy\_read\_timeout] statement. If your proxyserver is up, but hanging (e.g. it does not have enough threads to process your request so it puts you in the pool of connections to deal with later), then this statement will not help as the connection to the server has been made. It is necessary to keep in mind that this time out cannot be more than 75 seconds.

## proxy\_headers\_hash\_bucket\_size

语法:*proxy\_headers\_hash\_bucket\_size size;*

默认值:*proxy\_headers\_hash\_bucket\_size 64;*

上下文:*http, server, location, if*

This directive sets the bucket size of the hashtable.

TODO: Better description

## proxy\_headers\_hash\_max\_size

语法:*proxy\_headers\_hash\_max\_size size;*

默认值:*proxy\_headers\_hash\_max\_size 512;*

上下文:*http, server, location, if*

This directive sets the maximum size of the hashtable.

## proxy\_hide\_header

语法:*proxy\_hide\_header the\_header*

上下文:*http, server, location*

nginx does not transfer the "Date", "Server", "X-Pad" and "X-Accel-..." header lines from the proxied server response. The `proxy_hide_header` directive allows to hide some additional header lines. But if on the contrary the header lines must be passed, then the `proxy_pass_header` should be used. For example if you want to hide the MS-OfficeWebserver and the AspNet-Version:

```
location / {
: proxy_hide_header X-AspNet-Version;
: proxy_hide_header MicrosoftOfficeWebServer;
}
```

This directive can also be very helpful when using X-Accel-Redirect. For example, you may have one set of backend servers which return the headers for a file download, which includes X-Accel-Redirect to the actual file, as well as the correct Content-Type. However, the Redirect URL points to a filleserver which hosts the actual file you wish to serve, and that server sends its own Content-Type header, which might be incorrect, and overrides the header sent by the original backend servers. You can avoid this by adding the `proxy_hide_header` directive to the fileserver. Example:

```
location / {
: proxy_pass http://backend_servers;
}

location /files/ {
: proxy_pass http://filesserver;
: proxy_hide_header Content-Type;
}
```

## proxy\_ignore\_client\_abort

语法:*proxy\_ignore\_client\_abort [ on|off ]*

默认值:*proxy\_ignore\_client\_abort off*

上下文:*http, server, location*

Available since: 0.3.36

如果客户端断开请求,也保持后端的下载

本文档使用 [看云](#) 构建



## proxy\_intercept\_errors

语法:*proxy\_intercept\_errors [ on|off ]*

默认值:*proxy\_intercept\_errors off*

上下文:*http, server, location*

This directive decides if nginx will intercept responses with HTTP status codes of 400 and higher.

By default all responses will be sent as-is from the proxied server.

If you set this to `on` then nginx will intercept status codes that are explicitly handled by an `error_page` directive. Responses with status codes that do not match an `error_page` directive will be sent as-is from the proxied server.

## proxy\_max\_temp\_file\_size

语法:*proxy\_max\_temp\_file\_size size;*

默认值:*proxy\_max\_temp\_file\_size 1G;*

上下文:*http, server, location, if*

Available since: 0.1.8

TODO: Description.

## proxy\_method

语法:*proxy\_method [method]*

默认值:*None*

上下文:*http, server, location*

Used to allow the proxying of additional HTTP methods.

Note: at this time, Nginx only appears to allow a single instance of this directive and it only accepts a single argument (method) so it's not clear how useful this might be for proxying to things like Subversion.

Example:

```
: proxy_method PROPFIND;
```

## proxy\_next\_upstream

语法:*proxy\_next\_upstream [error|timeout|invalid\_header|http\_500|http\_503|http\_404|off]*

默认值:*proxy\_next\_upstream error timeout*

上下文:*http, server, location*

Directive determines, in what cases the request will be transmitted to the next server:

- *error* — an error has occurred while connecting to the server, sending a request to it, or reading its response;
- *timeout* — occurred timeout during the connection with the server, transfer the request or while reading response from the server;
- *invalid\_header* — server returned an empty or incorrect answer;
- *http\_500* — server returned answer with code 500
- *http\_503* — server returned answer with code 503
- *http\_404* — server returned answer with code 404
- *off* — it forbids the request transfer to the next server

Transferring the request to the next server is only possible when nothing has been transferred to the client -- that is, if an error or timeout arises in the middle of the transfer of the request, then it is not possible to retry the current request on a different server.

## proxy\_pass

语法:*proxy\_pass URL*

默认值:*no*

上下文:*location, if in location*

This directive sets the port or socket, on which listens to the proxied server, and the URI, to which will be reflected location.

Port can be indicated in the form of the name of hostname or address and port, for example,

```
proxy_pass http://localhost:8000/uri /;
```

and socket -- in the form of unix of socket:

```
proxy_pass http://unix:/tmp/backend.socket:/uri /;
```

Path is indicated after the word `unix` and is concluded between two colons.

With the transfer of request to server part URI, which corresponds to location, is substituted to URI, indicated in directive `proxy_pass`.

But there are two exceptions to this rule, when it is not possible to determine that replaced location:

- if the location is assigned by regular expression;
- if inside proxied location with the help of directive `rewrite` changes URI and with this configuration will be precisely processed request (break):

```
location /name/ {
: rewrite    /name/([^/] +) /users?name=$1 break;
: proxy_pass http://127.0.0.1;
}
```

For these cases of URI it is transferred without the mapping.

Furthermore, it is possible to indicate so that URI demand it would be transferred in the same form, as it sent client, but not v in the processed form.

During the working:

- two or by more slashes are converted into one slash: `"//"` -- `"/"`;
- references to the current directory are removed: `"/./"` -- `"/"`;
- references to the previous catalog are removed: `"/dir /../"` -- `"/"`.

If on server it is necessary to transmit URI in the unprocessed form, then for this in directive `proxy_pass` it is necessary to indicate URL server without URI:

```
location /some/path/ {
: proxy_pass http://127.0.0.1;
}
```

## proxy\_pass\_header

语法: `proxy_pass_header the_name`

上下文: `http, server, location`

This directive allows transferring header-lines forbidden for response.

For example:

```
location / {
: proxy_pass_header Server;
: proxy_pass_header X-MyHeader;
}
```

## proxy\_pass\_request\_body

语法:*proxy\_pass\_request\_body [ on | off ] ;*

默认值:*proxy\_pass\_request\_body on;*

上下文:*http, server, location*

Available since: 0.1.29

TODO: Description.

## proxy\_pass\_request\_headers

语法:*proxy\_pass\_request\_headers [ on | off ] ;*

默认值:*proxy\_pass\_request\_headers on;*

上下文:*http, server, location*

Available since: 0.1.29

TODO: Description.

## proxy\_redirect

语法:*proxy\_redirect [ default|off|redirect replacement ]*

默认值:*proxy\_redirect default*

上下文:*http, server, location*

This directive sets the text, which must be changed in response-header "Location" and "Refresh" in the response of the proxied server.

Let us suppose the proxied server returned line `Location: http://localhost:8000/two/some/uri/` .

The directive

```
proxy_redirect http://localhost:8000/two/ http://frontend/one/;
```

will rewrite this line in the form `Location: http://frontend/one/some/uri/` .

In the replaceable line it is possible not to indicate the name of the server:

```
proxy_redirect http://localhost:8000/two/ /;
```

then the basic name of server and port is set, if it is different from 80.

The change by default, given by the parameter "default", uses the parameters of directives `location` and `proxy_pass`.

Therefore two following configurations are equivalent:

```
location /one/ {
: proxy_pass    http://upstream:port/two/;
: proxy_redirect default;
}

location /one/ {
: proxy_pass    http://upstream:port/two/;
: proxy_redirect http://upstream:port/two/ /one/;
}
```

In the replace line, it is possible to use some variables:

```
proxy_redirect http://localhost:8000/ http://$host:$server_port/;
```

This directive repeated some times:

```
: proxy_redirect default;
: proxy_redirect http://localhost:8000/ /;
: proxy_redirect http://www.example.com/ /;
```

The parameter `off` forbids all `proxy_redirect` directives at this level:

```
: proxy_redirect off;
: proxy_redirect default;
: proxy_redirect http://localhost:8000/ /;
: proxy_redirect http://www.example.com/ /;
```

With the help of this directive it is possible to add the name of host for relative redirect, issued by the proxied server:

```
proxy_redirect / /;
```

## proxy\_read\_timeout

**语法:** *proxy\_read\_timeout the\_time*

**默认值:** *proxy\_read\_timeout 60*

**上下文:** *http, server, location*

This directive sets the read timeout for the response of the proxied server. It determines how long NGINX will wait to get the response to a request. The timeout is established not for entire response, but only between two operations of reading.

In contrast to `[#proxy_connect_timeout proxy_connect_timeout]` , this timeout will catch a server that puts you in it's connection pool but does not respond to you with anything beyond that. Be careful though not to set this too low, as your proxyserver might take a longer time to respond to requests on purpose (e.g. when serving you a report page that takes some time to compute). You are able though to have a different setting per location, which enables you to have a higher `proxy_read_timeout` for the report page's location.

If the proxied server nothing will communicate after this time, then nginx is shut connection.

## proxy\_redirect\_errors

Deprecated. Use `proxy_intercept_errors` .

## proxy\_send\_lowat

语法:`proxy_send_lowat [ on | off ]`

默认值:`proxy_send_lowat off;`

上下文:`http, server, location, if`

This directive set `SO_SNDLOWAT`.

This directive is only available on FreeBSD

## proxy\_send\_timeout

语法:`proxy_send_timeout time_in_seconds`

默认值:`proxy_send_timeout 60`

上下文:`http, server, location`

This directive assigns timeout with the transfer of request to the proxy server. Time out is established not on entire transfer of request, but only between two operations of record. If after this time the proxy server will not take new data, then nginx is shut the connection

## proxy\_send\_lowat

语法:`proxy_set_body [ on | off ]`

默认值:`proxy_set_body off;`

上下文:`http, server, location, if`

Available since: 0.3.10

TODO: Description.

## proxy\_set\_header

语法:*proxy\_set\_header header value*

默认值:*Host and Connection*

上下文:*http, server, location*

This directive allows to redefine and to add some request header lines which will be transferred to the proxied server.

As the value it is possible to use a text, variables and their combination.

This directive is inherited from the previous level when at this level are not described their directives `proxy_set_header` .

By default only two lines will be redefined:

```
proxy_set_header Host $proxy_host;  
proxy_set_header Connection Close;
```

The unchanged request-header "Host" can be transmitted like this:

```
proxy_set_header Host $http_host;
```

However, if this line is absent from the client request, then nothing will be transferred.

In this case it is better to use variable `$host`, it's value is equal to the name of server in the request-header "Host" or to the basic name of server, if there is no line:

```
proxy_set_header Host $host;
```

Furthermore, it is possible to transmit the name of server together with the port of the proxied server:

```
proxy_set_header Host $host:$proxy_port;
```

## proxy\_store

语法:*proxy\_store [on | off | path]*

默认值:*proxy\_store off*

上下文:*http, server, location*

This directive sets the path in which upstream files are stored. The parameter "on" preserves files in accordance with path specified in directives *alias* or *root*. The parameter "off" forbids storing. Furthermore, the name of the path can be clearly assigned with the aid of the line with the variables:

```
proxy_store /data/www$original_uri;
```

The time of modification for the file will be set to the date of "Last-Modified" header in the response. To be able to save files in this directory it is necessary that the path is under the directory with temporary files, given by directive *proxy\_temp\_path* for the data location.

This directive can be used for creating the local copies for dynamic output of the backend which is not very often changed, for example:

```
location /images/ {
: root          /data/www;
: error_page    404 = /fetch$uri;
}

location /fetch {
: internal;

: proxy_pass    http://backend;
: proxy_store   on;
: proxy_store_access user:rw group:rw all:r;
: proxy_temp_path /data/temp;

: alias         /data/www;
}
```

To be clear *proxy\_store* is not a cache, it's rather mirror on demand.

## proxy\_store\_access

**语法:** *proxy\_store\_access users:permissions [users:permission ...]*

**默认值:** *proxy\_store\_access user:rw*

**上下文:** *http, server, location*

This directive assigns the permissions for the created files and directories, for example:

```
proxy_store_access user:rw group:rw all:r;
```

If any rights for groups or all are assigned, then it is not necessary to assign rights for user:



```
proxy_store_access group:rw all:r;
```

## proxy\_temp\_file\_write\_size

语法:*proxy\_temp\_file\_write\_size size;*

默认值:*proxy\_temp\_file\_write\_size proxy\_buffer\_size \* 2;*

上下文:*http, server, location, if*

TODO: Description.

## proxy\_temp\_path

语法:*proxy\_temp\_path dir-path [ level1 [ level2 [ level3 ] ] ;*

默认值:*\$NGX\_PREFIX/proxy\_temp controlled by --http-proxy-temp-path at ./configure stage*

上下文:*http, server, location*

This directive works like `client_body_temp_path` to specify a location to buffer large proxied requests to the filesystem.

## proxy\_upstream\_fail\_timeout

Changed in 0.5.0 to deprecated.

Please use the `fail_timeout` parameter of `server` Directive from the upstream module.

## proxy\_upstream\_max\_fails

Changed in 0.5.0 to deprecated.

Please use the `max_fails` parameter of `server` Directive from the upstream module.

## Variables

In module `ngx_http_proxy_module` there are some built-in variables, which can be used for the creation of headers with the help of the `proxy_set_header` directive:

`$proxy_host`:: the name of proxied host and port;

`$proxy_port`:: the port of proxied host;

`$proxy_add_x_forwarded_for`:: equivalent to client request-header "X-Forwarded-For" and to variable added to it through the comma

`$remote_addr`:: But if there is no line "X-Forwarded-For" in the client request, then variable `$proxy_add_x_forwarded_for` is equal to variable `$remote_addr` .

## References

[Original Documentation](#)

## Questions

- Is it possible to have the proxy use a client SSL certificate to communicate with the server being proxied? I am in the situation where I want to secure the proxy <-> application server connection. Another solution could be to use SSL only with a custom header checked at each connection in the application server, but doing it at the protocol level would be nicer.
- [NginxHttpProxyModule#preview](#) 原文

# HttpRewrite模块

---

## HttpRewrite模块

This module makes it possible to change URI using regular expressions, and to redirect and select configuration depending on variables.

该模块允许使用正则表达式改变URI，并且根据变量来转向以及选择配置。

If the directives of this module are given at the server level, then they are carried out before the location of the request is determined. If in that selected location there are further rewrite directives, then they also are carried out. If the URI changed as a result of the execution of directives inside location, then location is again determined for the new URI.

如果在server级别设置该选项，那么他们将在location之前生效。如果在location还有更进一步的重写规则，location部分的规则依然会被执行。如果这个URI重写是因为location部分的规则造成的，那么location部分会再次被执行作为新的URI。

This cycle can be repeated up to 10 times, after which Nginx returns a 500 error.

这个循环会执行10次，然后Nginx会返回一个500错误。

## Directives

- `[#break break]`
- `[#if if]`
- `[#return return]`
- `[#rewrite rewrite]`
- `[#set set]`

- [#uninitialized\_variable\_warn uninitialized\_variable\_warn]

## break

语法:*break*

默认值:*none*

作用域:*server, location, if*

Completes the current set of rules. 作用是完成当前的规则列

示例:

```
if ($slow) {
: limit_rate 10k;
: break;
}
```

## if

语法:*if (condition) { ... }*

默认:*none*

作用域:*server, location*

Checks the truth of a condition. If the condition evaluates to true, then the code indicated in the curly braces is carried out and the request is processed in accordance with the configuration within the following block. Configuration inside directive if is inherited from the previous level.

They can be assigned as the condition:

- the name of variable; false values are: empty string "", or any string starting with "0";
- the comparison of variable with the line with using the `=` and `!=` operators;
- pattern matching with regular expressions using the symbols `~*` and `~`:
- `~` is case-sensitive match;
- `'~'`符合, 但是大小写敏感
- `~*` specifies a case-insensitive match (firefox matches FireFox)
- `~*`大小写不敏感的符合 ( firefox符合FireFox )
- `!~` and `!~*` mean the opposite, "doesn't match"
- `!~`和`!~*`代表相反, "不符合"

- checking for the existence of a file using the `-f` and `!-f` operators;使用-f以及!-f检测一个文件是否存在
- checking existence of a directory using the `-d` and `!-d` operators;使用-d以及!-d检测一个目录是否存在
- checking existence of a file, directory or symbolic link using the `-e` and `!-e` operators;使用-e以及!-e检测是否存在一个文件，一个目录或者一个符号链接。
- checking whether a file is executable using the `-x` and `!-x` operators.使用-x以及!-x检测一个文件是否可执行

Parts of the regular expressions can be in parentheses, whose value can then later be accessed in the `$1` to `>$9` variables.

Examples of use:

```
if ($http_user_agent ~ MSIE) {
: rewrite ^(.*)$ /msie/$1 break;
}
if ($http_cookie ~* "id=(\[^\;] +)(?:|$)" ) {
: set $id $1;
}
if ($request_method = POST ) {
: return 405;
}
if (!-f $request_filename) {
: break;
: proxy_pass http://127.0.0.1;
}
if ($slow) {
: limit_rate 10k;
}
if ($invalid_referer) {
: return 403;
}
```

The value of the built-in variable `$invalid_referer` is given by the directive `valid_referers`.

## return

语法:*return code*

默认值:*none*

作用域:*server, location, if*

This directive concludes execution of the rules and returns the status code indicated to client. It is

possible to use the following values: 204, 400, 402-406, 408, 410, 411, 413, 416 and 500-504. Furthermore, nonstandard code 444 closes the connection without sending any headers.

这个指令根据规则的执行情况，返回一个状态值给客户端。可使用值包括：204，400，402-406，408，410，411，413，416以及500-504。也可以发送非标准的444代码-未发送任何头信息下结束连接。

## rewrite

**语法:** *rewrite regex replacement flag*

**默认:** *none*

**作用域:** *server, location, if*

This directive changes URI in accordance with the regular expression and the replacement string. Directives are carried out in order of appearance in the configuration file.

这个指令根据表达式来更改URI，或者修改字符串。指令根据配置文件中的顺序来执行。

Be aware that the rewrite regex only matches the relative path instead of the absolute URL. If you want to match the hostname, you should use an if condition, like so:

注意重写表达式只对相对路径有效。如果你想配对主机名，你应该使用if语句，如下：

```
if ($host ~* www\.(.*)) {
: set $host_without_www $1;
: rewrite ^(.*)$ http://$host_without_www$1 permanent; # $1 contains '/foo', not 'www.mydomain.com/foo'
}
```

Flags make it possible to end the execution of rewrite directives.

If the replacement string begins with `http://` then the client will be redirected, and any further rewrite directives are terminated.

Flags can be any of the following:

- last - completes processing of rewrite directives, after which searches for corresponding URI and location
- break - completes processing of rewrite directives
- redirect - returns temporary redirect with code 302; it is used if the substituting line begins with `http://`
- permanent - returns permanent redirect with code 301

Note that if an redirect is relative (has no host part), then when redirecting Nginx uses the "Host" header if the header match name of `server_name` directive or the first name of `server_name`

directive, if the header does not match or is absent. If no `server_name` is set, then the local hostname is used. If you want Nginx to always use the "Host" header, you can use a wildcard "\*" `server_name` (but see the restrictions on doing so). Example:

```
rewrite ^(/download/.*)/media/(.*)\..*$ $1/mp3/$2.mp3 last;
rewrite ^(/download/.*)/audio/(.*)\..*$ $1/mp3/$2.ra last;
return 403;
```

But if we place these directives in location `/download/`, then it is necessary to replace flag "last" by "break", otherwise nginx will hit the 10 cycle limit and return error 500:

```
location /download/ {
: rewrite ^(/download/.*)/media/(.*)\..*$ $1/mp3/$2.mp3 break;
: rewrite ^(/download/.*)/audio/(.*)\..*$ $1/mp3/$2.ra break;
: return 403;
}
```

If in the line of replacement arguments are indicated, then the rest of the request arguments are appended to them. To avoid having them appended, place a question mark as the last character:

```
: rewrite ^/users/(.*)$ /show?user=$1? last;
```

注: 对花括号 ( { 和 } ) 来说, 他们既能用在重定向的正则表达式里, 也是用在配置文件里分割代码块, 为了避免冲突, 正则表达式里带花括号的话, 应该用双引号 ( 或者单引号 ) 包围。比如, 要将类似以下的url

```
/photos/123456
```

重定向到 :

```
/path/to/photos/12/1234/123456.png
```

可以用以下方法 (注意双引号):

```
rewrite "/photos/([0-9]{2})([0-9]{2})([0-9]{2})" /path/to/photos/$1/$1$2/$1$2$3.png;
```

## set

**syntax:** *set variable value*

**default:** *none*

**context:** *server, location, if*

Directive establishes value for the variable indicated. As the value it is possible to use a text, variables and their combination.

## uninitialized\_variable\_warn

**syntax:***uninitialized\_variable\_warn on|off*

**default:***uninitialized\_variable\_warn on*

**context:***http, server, location, if*

Enables or disables logging of warnings about noninitialized variables.

Internally, the rewrite directives are compiled at the time the configuration file is loaded into internal codes, usable during the request by the interpreter.

This interpreter is a simple stack virtual machine. For example, the directive:

```
location /download/ {
: if ($forbidden) {
: return 403;
: }
: if ($slow) {
: limit_rate 10k;
: }
: rewrite ^/(download/.*)/media/(.*)\..*$ /$1/mp3/$2.mp3 break;
}
```

will be compiled into this sequence:

```
: variable $forbidden
: checking to zero
: recovery 403
: completion of entire code
: variable $slow
: checking to zero
: checkings of regular expression
: copying "/"
: copying $1
: copying "/mp3/"
: copying $2
: copying "..mpe"

: completion of regular expression
: completion of entire sequence
```

Note that there is no code for directive `limit_rate`, since it does not refer to module `ngx_http_rewrite_module`. The "if" block exists in the same part of the configuration as the "location" directive.

If `$slow` is true, then what's inside the "if" block is evaluated, and in this configuration `limit_rate` it is equal to 10k.

Directive:

```
: rewrite ^/(download/.*)/media/(.*)\..*$ /$1/mp3/$2.mp3 break;
```

It is possible to reduce the sequence, if in the regular expression we include the first slash inside the parentheses:

```
: rewrite ^/(download/.*)/media/(.*)\..*$ $1/mp3/$2.mp3 break;
```

then the sequence will appear like this:

```
: checking regular expression
: copying $1
: copying "/mp3/"
: copying $2
: copying "..mpe"
: completion of regular expression
: completion of entire code
```

## References

[Original Documentation](#)

# HttpSSI模块

## HttpSSI模块

此模块处理服务器端包含文件(ssi)的处理. 列表中的命令当前并未完全支持.

### 配置示例

```
location / {
: ssi on;
}
```

## Directives

- `[#ssi ssi]`
- `[#ssi_silent_errors ssi_silent_errors]`



- [#ssi\_types ssi\_types]
- [#ssi\_value\_length ssi\_value\_length]

## SSI

语法:*ssi [ on | off ]*

默认值:*ssi off*

作用域:*http, server, location* 在location作用域中将启用SSI文件处理.

## ssi\_silent\_errors

语法:*ssi\_silent\_errors [on/off]*

默认值:*ssi\_silent\_errors off*

作用域:*http, server, location*

在处理SSI文件出错时不输出错误提示:"[an error occurred while processing the directive] "

## ssi\_types

语法:*ssi\_types mime-type [mime-type ...]*

默认值:*ssi\_types text/html*

作用域:*http, server, location*

Enables SSI processing for MIME-types in addition to "text/html" types.

## ssi\_value\_length

语法:*ssi\_value\_length length*

默认值:*ssi\_value\_length 256*

作用域:*http, server, location*

定义SSI允许使用的参数长度

## SSI 命令

格式示例如下:

```
: <!--# command parameter1=value parameter2=value... -->
```

支持的SSI 命令如下:

- `block` — command describes the block, which can be used as a silencer in command `include`. Inside the block there can be commands `SSI`.
- *name* — the name of the block. For example:

`::` the silencer `::`

- `config` — assigns some parameters with working SSI.
- *errmsg* — the line, which is derived with the error during the SSI processing. By default, this string is used: "[an error occurred while processing the directive] "
- *timefmt* — the time formatting string, as used in `strftime(3)`. By default, this string is used:

`:"%A, %d-%b-%Y %H:%M:%S %Z"` : To include time in seconds use the format "%s" as well.

- `echo` - print a variable
- *var* — the name of the variable
- *default* - if the variable is empty, display this string. Defaults to "none". Example:

`::` is the same as `:no:`

- `if / elif / else / endif` — conditionally include text or other directives. Usage:

.....Only one level of nesting is possible.

- *expr* — the expression to evaluate. It can be a variable:

A string

comparison: Or a regex match:

Если в text встречаются переменные, то производится подстановка их значений.

`include` — include a document from another source.

- `*file*` — include a file, e.g.

`::`

- *\*virtual\** — include a request, e.g.

Multiple requests will be issued in parallel. If you need them issued sequentially, use the "wait"

- *\*stub\** — The name of the block to use as a default if the request is empty or returns an error

- *wait* — when set to yes, the rest of the SSI will not be evaluated until the current request is

- *set* - assign a variable.
- *var* — the variable.
- *value* — its value. If it contains variable names, these will be evaluated.

## 内置变量

ngx\_http\_ssi\_module 支持两种内置变量:

- *\$date\_local* - 当前的本地时区时间.配置选项"timefmt"控制格式.
- *\$date\_gmt* - 当前的GMT时间. 配置选项"timefmt"控制格式.

## 参考

- [Original Documentation](#)

# HttpUserId

## HttpUserId

The module ngx\_http\_userid\_module gives out cookies for identification of clients. For logging it is possible to use variables `$uid_got` and `$uid_set`. Remark: keep in mind variables `$uid_got` and `$uid_set` are not accessible in SSI, because SSI filter module working before userid filter.

This module is compatible with [mod\\_uid](#) for Apache.

## Example

```
userid      on;
userid_name uid;

userid_domain example.com;
userid_path  /;
userid_expires 365d;
userid_p3p    'policyref="/w3c/p3p.xml", CP="CUR ADM OUR NOR STA NID";
```

## 鏌囩洸

### userid

**syntax:***userid [on|v1|log|off]*

**default:***userid off*

**context:***http, server, location*

Enables or disables issuing cookies and logging requested cookies:

- on - enables version 2 cookies and logs them;
- v1 - enables version 1 cookies and logs them;
- log - do not send cookies, but write down incoming cookies to log;
- off - do not send cookies, and don't write them to logs;

### userid\_domain

**syntax:***userid\_domain [ name | none ]*

**default:***userid\_domain none*

**context:***http, server, location*

Assigns the domain for cookie. The parameter "none" doesn't issue domain for cookie.

### userid\_expires

**syntax:***userid\_expires [ time | max ]*

**default:***none*

**context:***http, server, location*

Sets the expiration time for the cookie.

The parameter set & send-out browser expiration time for cookie. Value "max" assigns the time on 31 December, 2037, 23:55:55 gmt. This is the maximum time that older browsers understand.

## userid\_name

**syntax:***userid\_name name*

**default:***userid\_name uid*

**context:***http, server, location*

Assigns name to cookie.

## userid\_p3p

**syntax:***userid\_p3p line*

**default:***none*

**context:***http, server, location*

Directive assigns value for the header P3P, which will sent together with cookie.

## userid\_path

**syntax:***userid\_path path*

**default:***userid\_path /*

**context:***http, server, location*

Sets the cookie path.

## userid\_service

**syntax:***userid\_service number*

**default:***userid\_service address*

**context:***http, server, location*

Directive assigns the IP address of the server which gave out cookie. If not set, version 1 cookies set to zero, and for version 2 cookies the IP address of server.

## References

[Original Documentation](#)

## 其他模块

---

### 鐱朵糰媰“激

## Addition模块

---

### Addition媰“激

This module adds responses of other locations before and after the current location's response.

It is implemented as an output filter, the contents of the main request and subrequests to other locations are not buffered completely and are still sent to the client in a streaming fashion.

Because the length of the final response body is unknown while sending the HTTP headers, the HTTP chunked encoding is always used here.

## Installation

By default the module is not built, it is necessary to enable its build with

```
./configure --with-http_addition_module
```

at compilation time.

Example:

```
location / {  
    add_before_body /before_action;  
    add_after_body /after_action;  
  
}
```

## Limitations

Note that as of 0.8.17 no contents will be added if the current location is served as a subrequest itself. Consider the following example:

```
location /foo {
    add_before_body /bar;
}

location /bar {
    add_before_body /baz;
}
```

Then accessing `/foo` won't get `/baz` inserted before the contents of the subrequest `/bar`.

Also note that at this time, only strings can be used in before/after body locations, not variables. So

```
location / {
    set $before_action /before_action;
    add_before_body $before_action;
}
```

will not work as expected (although the configuration file will still load properly).

## Directives

### add\_before\_body

**syntax:***add\_before\_body uri*

**default:***no*

**context:***http, server, location*

Directive adds content of `uri` before the response body, issued as a result of the work of the assigned subrequest.

### add\_after\_body

**syntax:***add\_after\_body uri*

**default:***no*

**context:***http, server, location*

Directive adds content of `uri` after the response body, issued as a result of the work of the assigned subrequest.

### addition\_types

**syntax:***addition\_types mime-type [mime-type ...]*

**default:***text/html*

**context:***http, server, location*

Directive (since 0.7.9) allows you to add text only to locations of the specified MIME-types (defaults to *"text/html"*).

(Before 0.8.17, this directive was misspelled as "addtion\_types" in the source. This bug has been fixed in 0.8.17.)

## References

[Original Documentation](#)

# EmbeddedPerl

---

## EmbeddedPerl

This module makes it possible to execute Perl directly within Nginx and call Perl via SSI.

## Building Module at Compile-time

Unless built at compile-time, the module is not available. The default is to not build this module. If you want to enable this module, is necessary to specify **--with-http\_perl\_module** when running *configure*.

Your system must have Perl 5.6.1 or above.

## Known Problems

This module is experimental; therefore anything is possible and bugs are likely.

1. If a Perl module performs protracted operation, (for example DNS lookups, database queries, etc), then the worker process that is running the Perl script is completely tied up for the duration of script. Therefore embedded Perl scripts should be extremely careful to limit themselves to short, predictable operations.
2. It's possible for Nginx to leak memory if you reload the configuration file (via 'kill -HUP ').

Example:



```

http {

    perl_modules perl/lib;
    perl_require hello.pm;

    perl_set $msie6 '
    sub {
        my $r = shift;
        my $ua = $r->header_in("User-Agent");
        return "" if $ua =~ /Opera/;
        return "1" if $ua =~ /MSIE [6-9] \.\d+\/;
        return "";
    }
    ';

    server {
        location / {
            perl hello::handler;
        }
    }

}

```

perl/lib/hello.pm:

```

package hello;
use nginx;

sub handler {
    my $r = shift;
    $r->send_http_header("text/html");
    return OK if $r->header_only;

    $r->print("hello!\n<br/>");
    $r->rflush;

    if (-f $r->filename or -d _) {

        $r->print($r->uri, " exists!\n");
    }

    return OK;
}

1;
__END__

```

## 指令

## perl

**syntax:***perl module::function | 'sub {...}'*

**default:***no*

**context:***location*

Directive establishes a function for the data location.

## perl\_modules

**syntax:***perl\_modules path*

**default:***no*

**context:***http*

Directive assigns additional path for Perl modules. Since version 0.6.7 this path is relative to directory of nginx configuration file nginx.conf, but not to nginx prefix directory.

## perl\_require

**syntax:***perl\_require module*

**default:***no*

**context:***http*

There can be multiple perl\_require directives.

## perl\_set

**syntax:***perl\_set module::function | 'sub {...}'*

**default:***no*

**context:***http*

Directive establishes the function of variable ???

## Calling Perl from SSI

Instruction format is as follows:

```
<!-- # perl sub="module::function" arg="parameter1" arg="parameter2"... >
```

Methods of request object \$r:

- `$r->args` - method returns the arguments of request.
- `$r->filename` - method returns the name of file, which corresponds to URI request.
- `$r->has_request_body(function)` - method returns 0, if there is no request body. But if the request body exists, then the passed function is established and 1 returned. At the end of the body processing, nginx will call the established processor. Example usage:

```
package hello;

use nginx;

sub handler {

    my $r = shift;

    if ($r->request_method ne "POST") {

        return DECLINED;
    }

    if ($r->has_request_body(hello::post)) {
        return OK;
    }

    return 400;
}

sub post {
    my $r = shift;
    $r->send_http_header;
    $r->print("request_body: \", $r->request_body, "\"<br/>");
    $r->print("request_body_file: \", $r->request_body_file, "\"<br/>\n");
    return OK;
}

1;

__END__
```

- `$r->header_in(header)` - retrieve an HTTP request header.
- `$r->header_only` - true if we only need to return a response header.
- `$r->header_out(header, value)` - set a response header.
- `$r->internal_redirect(uri)` - method makes internal redirect to the indicated uri. Redirect occurs only after the completion of Perl script.
- `$r->print(args, ...)` - sends data to client.
- `$r->request_body` - method returns the request body of client when the body is not recorded into the temporary file.

So that the body of the demand of client is guaranteed to remain in memory, it is necessary to limit its size with the aid of `client_max_body_size` and to assign sufficient size for the buffer using `client_body_buffer_size`.

- `$r->request_body_file` — method returns the name of the file, in which is stored the body of the demand of client. The file must be removed on the completion of work. So that the body of the request would always be written to the file, it is necessary to indicate `client_body_in_file_only` on.
- `$r->request_method` — method returns the HTTP method of the request.
- `$r->remote_addr` - method returns IP address of client.
- `$r->rflush` - method immediately transmits data to client.
- `$r->sendfile(file [, displacement [, length ] )` - transfers to client contents of the file indicated. The optional parameters indicate initial offset and length of transmitted data. Strictly the transmission of data occurs only after the completion of the perl script.
- `$r->send_http_header(type)` - adds header to response. The optional parameter "type" establishes the value of line "Content-Type" in the title of answer.
- `$r->unescape(text)` - decodes the text, assigned in the form %XX.
- `$r->uri` - returns request URI.

## References

[Original Documentation](#)

# flv

---

## flv

This module provides the ability to seek within FLV (Flash) files using time-based offsets.

本模块提供FLV文件加载基于时间位移。

Module `ngx_http_flv_module` offers special handling of files it handles:

模块`ngx_http_flv_module`提供特殊处理的文件,它处理:

- adds FLV header to the requested file;
- 添加 FLV 头请求的文件;
- transfers file, beginning from the displacement, specified in the request argument `start=XXX`.
- 传输文件, 从开始的位移, 在请求参数中指定 `start=XXX`.

This module is not compiled by default and must be specified using the `--with-http_flv_module`

argument to configure when compiling Nginx.

本模块必需在编译nginx时加上--with-http\_flv\_module.

例如：

```
location ~ /\.flv$ {  
    flv;  
}
```

## HttpGzipStatic

### HttpGzipStatic

Before serving a file from disk to a gzip-enabled client, this module will look for a precompressed file in the same location that ends in ".gz". The purpose is to avoid compressing the same file each time it is requested.

在开始压缩创建硬盘上的文件之前，本模块将查找同目录下同名的.gz压缩文件，以避免同一文件再次压缩。

ngx\_http\_gzip\_static\_module was introduced in nginx 0.6.24. You must enable support at compile time:

nginx 0.6.24开始加入ngx\_http\_gzip\_static\_module . 编译时加上:

```
./configure --with-http_gzip_static_module
```

例如：

```
gzip_static on;  
  
gzip_http_version 1.1;  
gzip_proxied      expired no-cache no-store private auth;  
gzip_disable      "MSIE [1-6]\.";  
  
gzip_vary         on;
```

## 指令

### gzip\_static

**syntax:***gzip\_static on/off*

**default:***gzip\_static off*

**context:***http, server, location*

Enables the module. You should ensure that the timestamps of the compressed and uncompressed files match.

启动模块。您应该确保压缩和解压文件的时间戳匹配。

## gzip\_http\_version

See [NginxHttpGzipModule](#)

## gzip\_proxied

See [NginxHttpGzipModule](#)

## gzip\_disable

See [NginxHttpGzipModule](#)

## gzip\_vary

See [NginxHttpGzipModule](#)

# RandomIndex

---

## RandomIndex

Pick a random directory index from a directory.

从目录中选择一个随机目录索引。 .

例如:

```
location / {  
    random_index on;  
}
```

# HttpGeoIP

# HttpGeoIP

This module creates `ngx_http_geoip_module` variables based on the IP-address of the client matched against the [MaxMind](#) GeoIP binary files. This module appeared in nginx version 0.8.6.

本模块`ngx_http_geoip_module`的变量基于IP地址匹配[MaxMind](#) GeoIP 二进制文件. 这个模块开始出现在Nginx0.8.6。

Precondition 首先

This module needs the geo databases and the library to read the database.

模块必需有geo数据库和读取数据库类

```
#下载免费的geo_city数据库
wget http://geolite.maxmind.com/download/geoip/database/GeoLiteCity.dat.gz
#下载免费的geo_county数据库
wget http://geolite.maxmind.com/download/geoip/database/GeoLiteCountry/GeoIP.dat.gz
#在debian中安装libgeoip:
sudo apt-get install libgeoip-dev
#其它系统，你可以下载并编译一个源文件
wget http://geolite.maxmind.com/download/geoip/api/c/GeoIP.tar.gz
```

在centos可以用yum安装:

```
yum install geoip
```

编译

```
./configure --with-http_geoip_module
```

例如

```
http {
    geoip_country GeoIP.dat;
    geoip_city    GeoLiteCity.dat;
    ...
}
```

## 指令

### geoip\_country

**syntax:** `geoip_country path/to/db.dat;`

**default:** none

**context:** *http*

The directive indicates the path to the .dat file used for determining the visitor's country from the IP-address of the client. When set the module makes available the following variables:

dat文件用于判断访问者IP中的国家。当前模块 下可用的变量：

- `$geoip_country_code`; -国家名的前两个字母, 如, "RU", "US".
- `$geoip_country_code3`; - 国家名的前三个字母, 如, "RUS", "USA".
- `$geoip_country_name`; -国家名称, 如, "Russian Federation", "United States".

If you only need the country's name, you can just set the `geoip_country` database(1.1M), while the `geoip_city` database is much bigger(43M) and all the databses will be cached in memory.

如果你只需要国家，你只需设置`geoip_country`数据库(1.1M)，但城市的ip数据库就比较大(43M)并且将加载到内存当缓存。

## geoip\_city

**syntax:** *geoip\_city path/to/db.dat*;

**default:** none

**context:** *http*

The directive indicates the path to the .dat file used for determining countries, regions and cities from IP-address of the client. When set the module makes available the following variables:

dat文件用于判断访问者IP中的国家、省，城市。当前模块 下可用的变量:

- `$geoip_city_country_code`; -国家名的前两个字母, 如, "RU", "US".
- `$geoip_city_country_code3`; - 国家名的前三个字母, 如, "RUS", "USA".
- `$geoip_city_country_name`; -国家名称, 如, "Russian Federation", "United States".
- `$geoip_region`; - 省，州或区名 (province, region, state, province, federal land, and the like), 如, "Moscow City", "DC".
- `$geoip_city`; - 城市名称, 如, "Moscow", "Washington".
- `$geoip_postal_code`; - 邮政编码.

## References

[Original Documentation](#)

# HttpRealIp



# HttpRealIp

This module lets to change the client's IP address to value from request header (e. g. `X-Real-IP` or `X-Forwarded-For` ).

It is useful if nginx works behind some proxy of L7 load balancer, and request come from local IP, but proxy add request header with client's IP.

This module isn't built by default, enable it with the configure option

```
--with-http_realip_module
```

User Note: "You will build a list of trusted proxies (see below) and the first IP in the header which is not trusted will be used as the client IP." Source: README of the Apache module [mod\\_extract](#) . Quite informative, about why and how this security feature is helpful.

Example:

```
set_real_ip_from 192.168.1.0/24;  
set_real_ip_from 192.168.2.1;  
real_ip_header X-Real-IP;
```

## 錨困护

### set\_real\_ip\_from

**syntax:***set\_real\_ip\_from [the address|CIDR]*

**default:** none

**context:***http, server, location*

This directive describes the trusted addresses, which transfer accurate address for the replacement.

### real\_ip\_header

**syntax:***real\_ip\_header [X-Real-IP|X-Forwarded-For]*

**default:***real\_ip\_header X-Real-IP*

**context:***http, server, location*

This directive sets the name of the header used for transferring the replacement IP address.

# References

[Original Documentation](#)

## HttpSSL

---

### HttpSSL

This module enables HTTPS support.

It supports checking client certificates with two limitations:

- it is not possible to assign the list of the abolished certificates (revocation lists)
- if you have a chain certificate file (sometimes called an intermediate certificate) you don't specify it separately like you do in Apache. Instead you need to add the information from the chain cert to the end of your main certificate file. This can be done by typing "cat chain.crt >> mysite.com.crt" on the command line. Once that is done you won't use the chain cert file for anything else, you just point Nginx to the main certificate file.

By default the module is not built, it is necessary to specify that it be built with with the `--with-http_ssl_module` parameter to `./configure`. Building this module requires the OpenSSL libraries and include-files, often are the necessary files in separate packages.

The following is an example configuration, to reduce the CPU load it is recommended to run one worker process only and to enable keep-alive connections:

```
worker_processes 1;
http {

    server {
        listen      443;
        ssl         on;
        ssl_certificate /usr/local/nginx/conf/cert.pem;
        ssl_certificate_key /usr/local/nginx/conf/cert.key;
        keepalive_timeout 70;
    }

}
```

When using chain certificates, just append the extra certificates into your .crt file (cert.pem in the example). Your own certificate needs to be on top of the file, otherwise key get a mismatch with the key.

# Generate Certificates

To generate dummy certificates you can do this steps:

```
$ cd /usr/local/nginx/conf
$ openssl genrsa -des3 -out server.key 1024
$ openssl req -new -key server.key -out server.csr
$ cp server.key server.key.org
$ openssl rsa -in server.key.org -out server.key
$ openssl x509 -req -days 365 -in server.csr -signkey server.key -out server.crt
```

Configure the new certificate into nginx.conf:

```
server {

    server_name YOUR_DOMAINNAME_HERE;
    listen 443;
    ssl on;
    ssl_certificate /usr/local/nginx/conf/server.crt;
    ssl_certificate_key /usr/local/nginx/conf/server.key;

}
```

Restart Nginx.

Now all ready to access using:

```
https://YOUR_DOMAINNAME_HERE
```

## 鑄困护

### ssl

**syntax:***ssl [on|off]*

**default:***ssl off*

**context:***main, server*

Enables HTTPS for a server.

### ssl\_certificate

**syntax:***ssl\_certificate file*

**default:***ssl\_certificate cert.pem*

**context:***main, server*

Indicates file with the certificate in PEM format for this virtual server. The same file can contain other certificates, and also secret key in PEM format. Since version 0.6.7 the file path is relative to directory of nginx configuration file `nginx.conf`, but not to nginx prefix directory.

## ssl\_certificate\_key

**syntax:***ssl\_certificate\_key file*

**default:***ssl\_certificate\_key cert.pem*

**context:***main, server*

Indicates file with the secret key in PEM format for this virtual server. Since version 0.6.7 the filename path is relative to directory of nginx configuration file `nginx.conf`, but not to nginx prefix directory.

## ssl\_client\_certificate

**syntax:***ssl\_client\_certificate file*

**default:***none*

**context:***main, server*

Indicates file with certificates CA in PEM format, utilized for checking the client certificates.

## ssl\_dhparam

**syntax:***ssl\_dhparam file*

**default:***none*

**context:***main, server*

Indicates file with Diffie-Hellman parameters in PEM format, utilized for negotiating TLS session keys.

## ssl\_ciphers

**syntax:***ssl\_ciphers file*

**default:***ssl\_ciphers ALL:!ADH:RC4+RSA:+HIGH:+MEDIUM:+LOW:+SSLv2:+EXP*

**context:***main, server*

Directive describes the permitted ciphers. Ciphers are assigned in the formats supported by

OpenSSL, for example:

```
ssl_ciphersALL:!ADH:!EXPORT56:RC4+RSA:+HIGH:+MEDIUM:+LOW:+SSLv2:+EXP;
```

Complete list can be looked with the following command:

```
openssl ciphers
```

## ssl\_crl

**syntax:***ssl\_crl file*

**default:***none*

**context:***http, server*

This directive (0.8.7+) specifies a file with the revoked certificates (CRL) in the PEM, which is used to check for client certificates.

## ssl\_prefer\_server\_ciphers

**syntax:***ssl\_prefer\_server\_ciphers [on/off]*

**default:***ssl\_prefer\_server\_ciphers off*

**context:***main, server*

Requires protocols SSLv3 and TLSv1 server ciphers be preferred over the client's ciphers.

## ssl\_protocols

**syntax:***ssl\_protocols [SSLv2] [SSLv3] [TLSv1]*

**default:***ssl\_protocols SSLv2 SSLv3 TLSv1*

**context:***main, server*

Directive enables the protocols indicated.

## ssl\_verify\_client

**syntax:***ssl\_verify\_client on/off/ask*

**default:***ssl\_verify\_client off*

**context:***main, server*

Directive enables verifying client certificates. Parameter 'ask' checks a client certificate if it was

offered.

## ssl\_verify\_depth

**syntax:***ssl\_verify\_depth number*

**default:***ssl\_verify\_depth 1*

**context:***main, server*

Sets depth checking in the chain of client certificates.

## ssl\_session\_cache

**syntax:***ssl\_session\_cache off|none|builtin:size and/or shared:name:size*

**default:***ssl\_session\_cache off*

**context:***main, server*

The directive sets the types and sizes of caches to store the SSL sessions.

The cache types are:

- off -- Hard off: nginx says explicitly to a client that sessions can not reused.
- none -- Soft off: nginx says to a client that session can be reused, but nginx actually never reuses them. This is workaround for some mail clients as `ssl_session_cache` may be used in mail proxy as well as in HTTP server.
- builtin -- the OpenSSL builtin cache, is used inside one worker process only. The cache size is assigned in the number of the sessions. Note: there appears to be a memory fragmentation issue using this method, please take that into consideration when using this. See "References" below.
- shared -- the cache is shared between all worker processes. The size of cache is assigned in the bytes, 1 MB cache can contain about 4000 sessions. Each shared cache must have arbitrary name. Cache with the same name can be used in several virtual servers.

It is possible to use both types of cache simultaneously, for example:

```
ssl_session_cache builtin:1000 shared:SSL:10m;
```

However, the only shared cache usage without that builtin should be more effective.

## ssl\_session\_timeout

**syntax:***ssl\_session\_timeout time*

**default:***ssl\_session\_timeout 5m*

**context:***main, server*

Assigns the time during which the client can repeatedly use the parameters of the session, which is stored in the cache.

This module supports several nonstandard error codes which can be used for debugging with the aid of directive `error_page`:

- 495 - error checking client certificate
- 496 - client did not grant the required certificate
- 497 - normal request was sent to HTTPS

Debugging is done after the request is completely dismantled and are accessible via variables such as `$request_uri`, `$uri`, `$arg` and others. Built-in variables Module `ngx_http_ssl_module` supports several built-in variables:

- `$ssl_cipher` returns the line of those utilized it is cipher for established SSL-connection
- `$ssl_client_serial` returns the series number of client certificate for established SSL-connection
- `$ssl_client_s_dn` returns line subject DN of client certificate for established SSL-connection
- `$ssl_client_i_dn` returns line issuer DN of client certificate for established SSL-connection
- `$ssl_protocol` returns the protocol of established SSL-connection

## ssl\_engine

**syntax:***ssl\_engine*

This allows specifying the OpenSSL engine to use, like Padlock for example. It requires a more recent version of OpenSSL.

## References

[Original Documentation](#)[SSL Memory Fragmentation and new default status for ssl\\_session\\_cache](#)

# StubStatus模块

---

## StubStatus模块

这个模块能够获取Nginx自上次启动以来的工作状态

此模块非核心模块，需要在编译的时候手动添加编译参数 `--with-http_stub_status_module`

### 配置说明

```
location /nginx_status {
: # copied from http://blog.kovyrin.net/2006/04/29/monitoring-nginx-with-rrdtool/
: stub_status on;
: access_log off;
: allow SOME.IP.ADD.RESS;
: deny all;
}
```

## 指令

- [#stub\_status stub\_status]

## stub\_status

语法:*stub\_status on*

默认值:*None*

作用域:*location*

创建一个 location 区域启用 stub\_status

"stub status" 模块返回的状态信息跟 [mathopd's](#) 的状态信息很相似. 返回的状态信息如下:

```
Active connections: 291
server accepts handled requests
: 16630948 16630948 31070465
Reading: 6 Writing: 179 Waiting: 106
```

`active connections` -- 对后端发起的活动连接数

`server accepts handled requests` -- nginx 总共处理了 16630948 个连接, 成功创建 16630948 次握手 (证明中间没有失败的), 总共处理了 31070465 个请求 (平均每次握手处理了 1.8 个数据请求)

`reading` -- nginx 读取到客户端的Header信息数

`writing` -- nginx 返回给客户端的Header信息数

`waiting` -- 开启 keep-alive 的情况下, 这个值等于 `active - (reading + writing)`, 意思就是Nginx说已经处理完正在等候下一次请求指令的驻留连接

## Examples

<http://blog.kovyrin.net/2006/04/29/monitoring-nginx-with-rrdtool/>

[http://dev.2xlp.com/svn/nginx\\_config/trunk/conf/\\_rrd/README.txt](http://dev.2xlp.com/svn/nginx_config/trunk/conf/_rrd/README.txt)



# HttpSubstitution

## HttpSubstitution

This module can search and replace text in the nginx response. It is only available if the

```
--with-http_sub_module option
```

was specified for `./configure`.

本模块可以在nginx的回应中查找和替换文本.在编译nginx时必需加上`--with-http_sub_module option`

例如:

```
location / {
    sub_filter    </head>
    '</head> <script language="javascript" src="$script"> </script>';
    sub_filter_once on;
}
```

## 指令

### sub\_filter

**syntax:** *sub\_filter text substitution*

**default:** *none*

**context:** *http, server, location*

*sub\_filter* allows replacing some text in the nginx response with some other text, independently of the source of the data. The matching is case-insensitive. Substitution text may contain variables. Only one substitution rule per location is supported.

*sub\_filter* 允许替换源文件里的多个文本（多次替换）匹配是非常快速的。替换必须包含变量，一个location只能一个替换规则。

### sub\_filter\_once

**syntax:** *sub\_filter\_once on/off*

**default:** *sub\_filter\_once on*

**context:** *http, server, location*

*sub\_filter\_once off* allows to search and replace all matching lines, the default is replacing only the first one.

*sub\_filter\_once off* 允许查找替换所有匹配行，默认只替换第一个。

## sub\_filter\_types

**syntax:***sub\_filter\_types mime-type [mime-type ...]*

**default:***sub\_filter\_types text/html*

**context:***http, server, location*

*sub\_filter\_types* is used to specify which content types should be checked for *sub\_filter*. The default is only *text/html*.

*sub\_filter\_types*用于指定替换*sub\_filter*的类型，默认为*text/html*。

## References

[Original Documentation](#)

# HttpDav模块

## HttpDav模块

这个模块可以为Http webDAV 增加 PUT, DELETE, MKCOL, COPY 和 MOVE 等方法。

这个模块在默认编译的情况下不是被包含的，你需要在编译时指定如下参数：

```
./configure --with-http_dav_module
```

配置范例：

```
location / {
    root    /data/www;
    client_body_temp_path /data/client_temp;

    dav_methods PUT DELETE MKCOL COPY MOVE;

    create_full_put_path on;
    dav_access    group:rw all:r;

    limit_except GET {
        allow 192.168.1.0/32;
        deny  all;
    }
}
```

## 配置指导

# dav\_access

syntax: dav\_access user:permissions [users:permissions] ...

default: dav\_access user:rw

context: http, server, location

这个指令是赋予某个目录或文件以访问权，如：

```
dav_access user:rw group:rw all:r;
```

如果给一个用户组或所有用户任何权限，user 这个参数就没有必要设置了，如：

```
dav_access group:rw all:r;
```

# dav\_methods

syntax: dav\_methods [off|put|delete|mkcol|copy|move] ...

default: dav\_methods off

context: http, server, location

这个指令用于指定HTTP和WebDAV的方法，设置它为off 时其所有的方法都将无效（忽视你已经设置的方法）。

Put 方法的目标文件必须是和Nginx 的临时文件夹client\_body\_temp\_path 在同一个分区里。

当使用Put 方法创建一个文件时，有可能会通过设定date header 修改文件创建日期。

## create\_full\_put\_path

syntax: create\_full\_put\_path on|off

default: create\_full\_put\_path off

context: http, server, location

默认情况下，Put 方法只能在已存在的目录里创建文件。当然了Nginx 必须得有这个目录的修改和写入权限。

# GooglePerftools

## GooglePerftools

This module enables [Google Performance Tools](#) profiling for workers. This module appeared in nginx version 0.6.29.

By default the module is not built, it is necessary to enable its build with

```
./configure --with-google_perftools_module
```

at compilation time.

Example

```
google_perftools_profiles /path/to/profile;
```

Profiles will be stored as /path/to/profile.

## 鑄困护

## google\_perftools\_profiles

**syntax:** *google\_perftools\_profiles path*

**default:** *none*

Directive specifies the base filename of profiles collected by Google Perftools profiler. The workers PIDs will be appended to the specified base filename.

# HttpXSLT

## HttpXSLT

This module is a filter which converts an XML response with the aid of one or more XSLT templates.

This module was introduced in 0.7.8 and needs to be enabled via

```
./configure --with-http_xslt_module
```

Example:

```
location / {
    xml_entities    /site/dtd/entities.dtd;
    xslt_stylesheet /site/xslt/one.xslt param=value;
    xslt_stylesheet /site/xslt/two.xslt;
}
```

## 指令

### xslt\_entities

**syntax:** *xml\_entities*

**default:** *no*

**context:** *http, server, location*

Specifies the DTD file which describes symbolic elements (xml entities). This file is compiled at the stage of configuration. For technical reasons it's not possible to specify entities in the XML being processed, therefore they are ignored, but this specially assigned file is used instead. In this file it is not necessary to describe structure of processed XML, it is sufficient only to declare necessary symbolic elements, for example:

```
<! ENTITY of nbsp " ">
```

### xslt\_stylesheet

**syntax:** *xslt\_stylesheet template [parameter[[ parameter... ]] default:no*

**context:** *http, server, location*

Specifies the XSLT template with its parameters. Template is compiled at the stage of configuration. The parameters are assigned as shown:

```
param=value
```

You can specify parameters either one per line, or separate multiple parameters with colon ( “:” ) If the parameter itself contains the character “:” , escape it as “%3A” . Furthermore, libxslt requires that string parameters should be quoted by the single or dual quotation marks if they contain non-alphanumeric characters, for example:

```
param1='http%3A//www.example.com': param2=value2
```

It's possible to use variables as parameters, for example, the entire line of the parameters can be substituted with one variable:

```
location / {
    xslt_stylesheet /site/xslt/one.xslt
    $arg_xslt_params

    param1='$value1': param2=value2
    param3=value3;
}
```

It is possible to specify several templates, in which case they would be chained together in the order of their declaration.

## xslt\_types

**syntax:***xslt\_types mime-type [mime-type...]*

**default:***xslt\_types text/xml*

**context:***http, server, location*

Permit processing responses with specified MIME-types in addition to “text/xml” . If XSLT output mode is HTML, then the response MIME-type changes to “text/HTML” .

# HttpSecureLink

## HttpSecureLink

This module computes and checks request URLs for a required security token. This module is not compiled by default and must be specified using the

这个模块计算和检测URL请求中必须的安全标识

这个模块没有默认编译，在编译Nginx时，必须使用明确的配置参数

本文档使用 [看云](#) 构建

```
--with-http_secure_link_module
```

argument to configure when compiling Nginx. Note that this module is only supported in nginx version 0.7.18 and higher.

来说明配置.这个模块在Nginx 0.7.18及以上版本中被支持.

## Example usage:

```
location /prefix/ {
    secure_link_secret secret_word;

    if ($secure_link = "") {
        return 403;
    }
}
```

## 指令

**syntax:***secure\_link\_secret secret\_word*

**default:***none*

**context:***location*

The directive specifies a secret word to verify requests. The full URL for a protected links follows this form:

这个指令明确一个安全关键字来审核请求。完整的被保护的URL如下表：

***/prefix/hash/reference***

*hash* is computed as as 使用md5('参考','安全密码')函数计算

```
md5 (reference, secret_word);
```

**prefix** is the scope of the location block, and must not be '/'. **secure\_link** can only be used in non-root paths.

前缀是定位块的范围，绝对不能使用'/'。安全连接只能被用在非根目录路径。

## 变量

### **\$secure\_link**

Automatically set to the reference component of the URL, isolated from the prefix and hash. If the hash is incorrect, an empty string is returned instead.

自动设置模块到URL的关联,分开前缀和HASH。如果HASH不正确,将返回空字符串。

# HttpImageFilter

## HttpImageFilter

**Version:** 0.7.54+

This module is a filter for transforming JPEG, GIF and PNG images. It is not enabled by default to enable it, provide this option to `./configure` when building nginx:

这个模块用来分发JPEG, GIF和PNG图片。这个没有默认开启,在编译nginx中通过`./configure`参数配置

```
--with-http_image_filter_module
```

libgd is required to build and run the module. We recommend using the latest version of libgd. 编译和运行这个模块必须安装libgd库。我们推荐使用最新版本的Libgd.

## Example Configuration

```
location /img/ {
    proxy_pass    http://backend;
    image_filter  resize 150 100;
    error_page   415 = /empty;
}

location = /empty {
    empty_gif;
}
```

## 指令

### image\_filter

**Syntax:** `image_filter (test|size|resize width height|crop width height)`

**Default:** `none`

**Context:** `location`

Specifies the type of transformation to apply to the image, one of the below:

详细的图片后缀类型如下：

- `test`: checking that the response is indeed an image format JPEG, GIF or PNG. Otherwise, an



error 415.

测试：测试确定图片文件的后缀格式为JPEG，GIF OR PNG。否则返回415错误

- size: Gives information about the image in JSON format. For example,  
尺寸：返回JSON格式的图片信息。例如：

```
{ "img" : { "width": 100, "height": 100, "type": "gif" } }
```

Or if an error occurs,

或者如果发生错误,

```
{ }
```

- resize: proportionally reduces the image to a specified size.  
调整大小：缩略图片到特定的尺寸
- crop: proportionally reduces the image to a specified size and trims extra edge.  
切割：切割图片到特定的尺寸和特定的分辨率

## image\_filter\_buffer

**Syntax:** *image\_filter\_buffer size*

**Default:** *1M*

**Context:** *http, server, location*

Sets the maximum size for reading the image.

设置读取文件的最大的尺寸

## image\_filter\_jpeg\_quality

**Syntax:** *image\_filter\_jpeg\_quality [0...100]*

**Default:** *75*

**Context:** *http, server, location*

Sets the rate of loss of information when processing the images as **JPEG**. The maximum recommended value is **95**.

设置处理JPEG图片的丢失信息率.推荐的最大值为95

## image\_filter\_transparency

**Syntax:** *image\_filter\_transparency on/off*

**Default:** *on*

**Context:** *http, server, location*

This directive allows you to disable image transparency in GIF and palette-based PNG to improve image resampling quality.

这个指令容许你关闭GIF图片的透明度和 PNG图片质量

True color PNG alpha-channels are always preserved despite this setting.

真彩色PNG图片保存忽略设定

Note: Grayscale PNG's are untested, but should be handled as truecolor PNGs.

注释：灰度PNG图片未被设置，但应该被作为真彩色PNG图片处理

## References

[Original Documentation](#)

# mail模块

## mail的“激

## MailCore

### MailCore

Nginx is able to handle and proxy the following mail protocols:

Nginx 能够处理和代理以下邮件协议:

- IMAP
- POP3
- SMTP

### 认证

nginx uses external HTTP-like server to learn which IMAP/POP backend it should connect to.

nginx的IMAP / POP后端处理类似HTTP服务器的连接方式。

nginx passes authorization information in HTTP headers:

nginx 在HTTP头里传递授权信息:

```
GET /auth HTTP/1.0
Host: auth.server.hostname
Auth-Method: plain
Auth-User: user
Auth-Pass: password
Auth-Protocol: imap
Auth-Login-Attempt: 1
Client-IP: 192.168.1.1
```

The good response is:

正常的回应是:

```
HTTP/1.0 200 OK    # this line is actually ignored and may not exist at all 这行可能被忽略或者不可能都存在
Auth-Status: OK
Auth-Server: 192.168.1.10
Auth-Port: 110
Auth-User: newname # you may override the user name to login to a backend 你可以重写用户名登录后端
```

When authenticating with APOP for POP3, you must return Auth-Pass as well:

当在POP3中使用APOP协议时，你必须返回验证密码如下：

```
HTTP/1.0 200 OK    # this line is actually ignored and may not exist at all
Auth-Status: OK
Auth-Server: 192.168.1.10
Auth-Port: 110
Auth-User: newname # you may override the user name to login to a backend
Auth-Pass: password # this must be the user's password in cleartext 这里必须是明文形式的用户密码
```

The failed response is:

失败的回应是：

```
HTTP/1.0 200 OK    # this line is actually ignored and may not exist at all
Auth-Status: Invalid login or password
Auth-Wait: 3      # nginx will wait 3 seconds before reading Nginx在读之前等待3秒
# client's login/passwd again
```

## 指令

### auth

Renamed to pop3\_auth in 0.5.15

### imap\_capabilities

**syntax:** *imap\_capabilities* "capability1" ["capability2" .. "capabilityN"]

**default:** "IMAP4" "IMAP4rev1" "UIDPLUS"

**context:** *main, server*

With this directive you can set the list of [IMAP protocol](#) extensions presented to the client upon issuing the IMAP command CAPABILITY. [STARTTLS](#) is automatically added if you enable the starttls directive.

使用这条指令你可以设置IMAP协议列表来扩展现有的客户端上的IMAP的命令CAPABILITY。如果你启用了STARTTLS那么STARTTLS命令将自动加入。

The current list of standardized IMAP expansions is published on [www.iana.org](http://www.iana.org).

现在所列出的标准的IMAP扩展发布在[www.iana.org](http://www.iana.org)上。

```
mail {  
    imap_capabilities NAMESPACE SORT QUOTA;  
}
```

Will the defaults be also set, I haven't see this in the source?! (al 2007-05-11)

这个设置了默认了？我在源码中没有看到！

## imap\_client\_buffer

**syntax:***imap\_client\_buffer size*

**default:***4K/8K*

**context:***main, server*

With this directive you can set the read buffer for IMAP commands. The default value is equal to the size of a page (this can be either 4K or 8K depending on the platform).

## listen

**syntax:***listen address:port [ bind ]*

**default:***no*

**context:***server*

The directive specifies the address and port, on which the server accepts requests. It is possible to specify address or port only, besides, an address can be the server name, for example:

当服务器接收请求时，这条指令指定地址和端口。这个可能只知道地址或者端口，另外，地址可能是服务器名，例如：

```
listen 127.0.0.1:8000;  
listen 127.0.0.1;  
  
listen 8000;  
listen *:8000;  
listen localhost:8000;
```

IPv6 address(>=0.7.58) are set in square brackets:

```
listen [::]:8000;  
listen [fe80::1];
```

In directive `listen` it is possible to indicate the system call `bind(2)`.

`listen`指令可能显示显示系统命令 `bind`.

`bind --` indicates that it is necessary to make `bind(2)` separately for this pair of `address:port`. If several directives `listen` with identical port but with different addresses and one of the directives `listen` to all addresses for this port (`.*:port`) then *Nginx will make `bind(2)` only to `*:port`. In this case the address is determined by the system call `getsockname()`.*

*`bind --` `bind`指令必须是绑定一对地址：端口。如果多个指令监听不同地址的相同的端口，另一个指令监听所有地址的端口(端口号)，这样的话Nginx将指执行 `bind`的 `*:端口号` .这样的话地址只能是系统命令 `getsockname()`的值。*

## pop3\_auth

**syntax:**`pop3_auth[plain] [apop] [cram-md5]`

**default:**`plain`

**context:**`main, server`

With this directive you can set the permitted methods of authentication for POP3 clients:

使用这条指令你可以设置验证POP3客户端的验证方法:

- `plain` - [USER/PASS](#) , [AUTH PLAIN](#) , [AUTH LOGIN](#)
- `apop` - [APOP](#)
- `cram-md5` - [AUTH CRAM-MD5](#)

## pop3\_capabilities

**syntax:**`pop3_capabilities"capability1" ["capability2" .. "capabilityN"]`

**default:**`"TOP" "USER" "UIDL"`

**context:**`main, server`

With this directive you can set the list of [POP3 protocol](#) extensions presented to the client upon issuing the POP3 command `CAPA`. [STLS](#) is automatically added if you enable the `starttls` directive and [SASL](#) is added by the directive `auth`.

使用这条指令你可以设置 [POP3 协议](#) 列表来扩展现有客户端上的POP3命令`CAPA`。如果你启用了`starttls`指令`STLS`将会自动被添加，通过`auth`，`SASL`也将被添加。

## protocol

**syntax:**`protocol[ pop3 | imap | smtp ];`

**default:**`IMAP`

**context:***server*

This directive set the protocol for this server block.

这条指令设置了服务器块的协议

## > server

**syntax:***server {...}*

**default:***no*

**context:***mail*

Directive assigns configuration for the virtual server.

指令指定虚拟服务器的配置

There is no clear separation of the virtual servers ip-based and name-based (the value of the line "Host" header in the request).

这里不区分基于IP的虚拟服务器和基于命名的虚拟服务器 (Host指从请求头中获得)

Instead of this by directives listen are described all addresses and ports, on which it is necessary to assume connections for this server, and in directive server\_name are indicated all names of servers. Example configurations are described in tuning of virtual servers.

可以替代这个的listen指令描述了连接服务器的所有的地址和端口, 和纸条指令的server\_name显示了所有的服务器命名。例如 以下配置描述了虚拟服务器的调度

## server\_name

**syntax:***server\_name namefqdn\_server\_host*

**default:***The name of the host, obtained through gethostname()*

**context:***mail, server*

Directive assigns the names of virtual server, for example:

```
server {
    server_name example.com www.example.com;
}
```

The first name becomes the basic name of server. By default the name of the machine (hostname) is used. It is possible to use " " for replacing the first part of the name:

第一个名称被默认为服务器的基本名词.被当作默认的机器名使用,这个也可能被所代替。

```
server {
    server_name example.com *.example.com;
}
```

Two of the given name of the above example can be combined into one:

2个给定的名词在以上的例子中被合并成一个

```
server {
    server_name .example.com;
}
```

The basic name of server is used in an HTTP redirects, if no a "Host" header was in client request or that header does not match any assigned server\_name. You can also use just " " *to force Nginx to use the "Host" header in the HTTP redirect (note that "" cannot be used as the first name, but you can use a dummy name such as " " instead):*

*HTTP重定向中使用了服务器基本名称，如果客户端请求中没有"host"头或者头中没知道server\_name.你可以使用 " " 来强制Nginx在HTTP重定向中使用"Host"头 (注释：“\*”不能作为第一命名可以使用""代替)*

```
server {
    server_name example.com *;
}
server {
    server_name _*;
}
```

## smtp\_auth

**syntax:** `smtp_auth`[*login*] [*plain*] [*cram-md5*];

**default:** `login plain`

**context:** `main, server`

With this directive you can set the permitted methods of authentication for SMTP clients:

使用这个命令你可以设置SMTP客户端的验证方法

- login - [AUTH LOGIN](#)
- plain - [AUTH PLAIN](#)
- cram-md5 - [AUTH CRAM-MD5](#)

## smtp\_capabilities

**syntax:** `smtp_capabilities` "*capability1*" [ "*capability2*" .. "*capabilityN*" ]



**default:***no*

**context:***main, server*

With this directive you can set the list of SMTP protocol extensions presented to the client upon issuing the EHLO command. This list is automatically extended by the methods enabled with the directive [smtp\\_auth](#).

使用这条指令你可以设置SMTP协议扩展现有的客户端通过使用EHLO命令.使用smtp\_auth指令这个列表将被自动扩展。

The current list of standardized SMTP expansions is published on [www.iana.org](http://www.iana.org) . 现在标准的SMTP扩展列表发布在[www.iana.org](http://www.iana.org)

## so\_keepalive

**syntax:***so\_keepaliveon/off,*

**default:***off*

**context:***main, server*

With this directive you can set the socket SO\_KEEPALIVE option for the connection to the IMAP/POP3 backend. In FreeBSD the keepalive option is used for all connections and can be turned off through `setsockopt no` (see `sysctl net.inet.tcp.always_keepalive`).

通过使用这条指令你可以设置socket连接IMAP / POP3的SO——KEEPALIVE选项。在FREEBSD中这个keepalive(保持存活) 选项在所有的连接中都有效并且可以使用setsockopt no来关闭。

## timeout

**syntax:***timeoutmilliseconds;*

**default:***60000*

**context:***main, server*

With this directive you can set the time out for proxied connections to the back end.

使用这条指令你可以设置 代理连接的超时时间

# MailAuth

---

## MailAuth

Example configuration

配置举例：

```
auth_http      localhost:9000/cgi-bin/nginxauth.cgi;
auth_http_timeout 5;
}
```

## 指令

### auth\_http

**syntax:***auth\_http***URL**

**default:***no*

**context:***mail, server*

With this directive you can set the URL to the external HTTP-like server for authorization. A description of the protocol can be found [here](#) .

使用这条指令你可以设置URL像HTTP服务器那样的验证。协议描述可以看 [这里](#)

### auth\_http\_header

**syntax:***auth\_http\_header***header value**

**default:***no*

**context:***mail, server*

With this directive you can add a HTTP header and value during the identification process. This makes it possible to use a shared secret to ensure that the request was answered by nginx.

使用这条指令你可以添加HTTP头和值到验证进程中。这个使得可以用共享密码来却不请求得到Nginx的响应

For example:

```
auth_http_header X-NGX-Auth-Key "secret_string";
```

### auth\_http\_timeout

**syntax:***auth\_http\_timeout***milliseconds;**

**default:***60000*

**context:***mail, server*

With this directive you can set the time out for authentication process.

# MailProxy

---

## MailProxy

Nginx can proxy IMAP, POP3, and SMTP protocols.

Ngin可以代理IMAP , POP3和SMTP协议

## 指令

### proxy

**syntax:***proxy on | off*

**default:***off*

**context:***mail, server*

With this directive you can enable or disable the proxy for mail.

使用这条指令你可以开启和关闭邮件代理

### proxy\_buffer

**syntax:***proxy\_buffersize*

**default:***4K/8K*

**context:***mail, server*

With this directive you can set the buffer size for the proxy connection. The default value is equal to the size of a page (this can be either 4K or 8K depending on the platform).

使用这条指令你可以设置代理连接的缓存大小。默认值为页面的大小(这个根据平台的不同可能是4K或者8K )

### proxy\_pass\_error\_message

**syntax:***proxy\_pass\_error\_message on | off*

**default:***off*

**context:***mail, server*

With this directive you can pass authentication error messages obtained from the backend back to the client. Usually if authorization in nginx passed successfully then the backend cannot return

errors back to the client.

通过这条指令你可以使得客户端忽略从后端获得的验证错误消息.通常验证成不会返回错误消息到客户端。

But for some POP3 servers errors in response to correct password is a regular behavior. For example [CommuniGatePro](#) notifies user about overcrowding of the mailbox (or other events) periodically issuing an error in authorization. In this case is worth indicating `proxy_error_message on`.

但是在POP3服务器中错误是用来更重密码。例如[CommuniGatePro](#) 通过验证返回邮箱收件箱已满的错误来通知用户，这样的代理错误信息是很有意义的。

## proxy\_timeout

**syntax:***proxy\_timeouttime*

**default:***24h*

**context:***mail, server*

With this directive you can set the timeout for the proxy connection.

使用这条指令你可以设置代理连接的超时时间。

## xclient

**syntax:***xclient on / off*

**default:***on*

**context:***mail, server*

With this directive you can enable or disable the command XCLIENT with the connection to SMTP backend. This allows the backend to enforce limitations on the client based on IP/HELO/LOGIN.

使用这条指令你可以开启或者关闭命令XCLIENT的SMTP后端连接.这个使得后端强制可以通过IP / HELO / LOGIN限定客户端

If xclient is enabled then nginx first transfers to the backend:

如果xclient被启用，nginx首先转换到后端

```
EHLO server_name
```

Then:

```
XCLIENT PROTO=ESMTP HELO=client_helo ADDR=client_ip LOGIN=authenticated_user NAME=[UNAVAILABLE]
```

# MailSSL

---

## MailSSL

This module ensures SSL/TLS support for POP3/IMAP/SMTP. Configuration is practically identical to the configuration of the HTTP SSL module, but checking client certificates is not supported.

这个模块使得POP3 / IMAP / SMTP可以使用SSL / TLS.配置已经定义了HTTP SSL模块，但是不支持客户端证书检测。

### ssl

**syntax:***ssl on / off*

**default:***ssl off*

**context:***mail, server*

Enables SSL/TLS for this virtual server.

在虚拟服务器中启用SSL / TLS

### ssl\_certificate

**syntax:***ssl\_certificate file*

**default:***cert.pem*

**context:***mail, server*

Indicates file with the certificate in PEM format for this virtual server. The same file can contain other certificates, and also secret key in PEM format.

显示虚拟服务器上的PEM格式的证书文件。同一文件可以包含其他的证书和包含PEM格式的安全码。

### ssl\_certificate\_key

**syntax:***ssl\_certificate\_key file*

**default:***cert.pem*

**context:***mail, server*

Indicates file with the secret key in PEM format for this virtual server.

显示虚拟服务器中PEM格式的安全码文件

### ssl\_ciphers

**syntax:***ssl\_ciphers file ciphers*

本文档使用 [看云](#) 构建

**default:***ALL:!ADH:RC4+RSA:+HIGH:+MEDIUM:+LOW:+SSLv2:+EXP*

**context:***mail, server*

Directive describes the permitted ciphers. Ciphers are assigned in the formats supported by OpenSSL.

指令描述了容许的SSL ciphers.chiphers都被使用了OpenSSL支持的格式.

## ssl\_prefer\_server\_ciphers

**syntax:***ssl\_prefer\_server\_cipherson | off*

**default:***off*

**context:***mail, server*

Requires protocols SSLv3 and TLSv1 server ciphers be preferred over the client's ciphers.

需要SSLv3协议,TLSv1 服务器端米阿么优先于客户端密码

## ssl\_protocols

**syntax:***ssl\_protocols[SSLv2] [SSLv3] [TLSv1]*

**default:***SSLv2 SSLv3 TLSv1*

**context:***mail, server*

Directive enables the protocols indicated.

指令显示协议

## ssl\_session\_cache

**syntax:***ssl\_session\_cache[builtin[:size] [shared:name:size]*

**default:***builtin:20480*

**context:***mail, server*

The directive sets the types and sizes of caches to store the SSL sessions.

指令设置了类型和存储SSL 会话的缓存的大小.

The cache types are:

缓存类型为 :

- builtin -- the OpenSSL builtin cache, is used inside one worker process only. The cache size is assigned in the number of the sessions.  
builtin -- OpenSSL内部缓存,这个只在内部工作进程中被使用.这个缓存大小等同于会话的个数.
- shared -- the cache is shared between all worker processes. The size of cache is assigned in

the bytes, 1 MB cache can contain about 4000 sessions. Each shared cache must have arbitrary name. Cache with the same name can be used in several virtual servers.  
shared -- 这个缓存被所有工作进程共享.这个缓存大小用字节标识,1M缓存可以包含大约4000个会话。每个共享缓存都有专用的名称。相同名称的缓存可以被多个服务器使用。

It is possible to use both types of cache simultaneously, for example:

可能同时使用2中类型的缓存，例如

```
ssl_session_cache builtin:1000 shared:SSL:10m;
```

However, the only shared cache usage without that builtin should be more effective.

然而，共享缓存只有在内部缓存之外使用才能产生更好的效果。

## ssl\_session\_timeout

**syntax:***ssl\_session\_timeout***time**

**default:***5m*

**context:***mail, server*

Assigns the time during which the client can repeatedly use the parameters of the session, which is stored in the cache.

在使用中客户端重复使用的会话参数被存储在缓存中。

## starttls

**syntax:***starttls* **on | off | only**

**default:***off*

**context:***mail, server*

- on - permit the use of commands STLS for POP3 and STARTTLS for IMAP/SMTP  
on - 容许在POP3中的STLS命令和IMAP / SMPT中的STARTTLS命令
- off - do not allow command STLS/STARTTLS  
不容许 STLS / STARTTLS命令
- only - announce STLS/STARTTLS support and require that clients use TLS encryption  
only - 宣布支持 STLS / STARTTLS但是需要客户端使用TLS加密

# 安装

## nginx在windows上的安装

### nginx在windows上的安装

写一下简单的安装方法

#### 1. 下载软件

需要的软件有nginx,php,mysql(如不需要可不安装)

nginx.org,[www.php.net](http://www.php.net)上面有得下

全部解压出来

php基本不用做任何修改(下载直接解压版本的)

#### 2. 配置nginx

只需修改一行(nginx/conf/nginx.conf)

```
fastcgi_param SCRIPT_FILENAME d:/nginx/html/$fastcgi_script_name;
```

找到大概这一行修改路径最好是绝对路径(相对路径可以自行探讨)

#### 3. 运行软件

先运行php

程序》运行》cmd

到php所在目录运行下面代码

```
php-cgi.exe -b 127.0.0.1:9000 -c php\php.ini
```

再运行nginx

到nginx所在目录

```
nginx.exe -c conf\nginx.conf
```

这样就ok了。



# nginx在freebsd上的安装

---

## nginx在freebsd上的安装

### 一 . 安装必备软件 MySQL+PHP+Pcre

```
cd /usr/ports/database/mysql50-server && make install clean  
cd /usr/lang/php5/ && make install clean 选择对cgi mysql等的支持  
cd /usr/devel/pcre && make install clean
```

用ports安装 /usr/ports/www/nginx, make install clean

### 二、弄了一个fastcgi的脚本，来自lighttpd

- 1) cd /usr/ports/www/lighttpd
- 2) make
- 3) cp /usr/ports/www/lighttpd/work/lighttpd-1.4.18/src/spawn-cgi /usr/bin
- 4) make clean

### 三、修改配置文件:

1,/usr/local/etc/nginx/nginx.conf:

```
user www www;
worker_processes 10;
error_log /usr/local/etc/nginx/logs/nginx_error.log crit;
worker_rlimit_nofile 51200;
events
{
    use epoll;
    worker_connections 51200;
}
http
{
    include conf/mime.types;
    default_type application/octet-stream;
    charset gb2312;
    server_names_hash_bucket_size 128;
    keepalive_timeout 60;
    tcp_nodelay on;
    gzip on;
    gzip_min_length 1k;
    gzip_buffers 4 8k;
    gzip_http_version 1.1;
    gzip_types text/plain application/x-javascript. text/css text/html application/xml;
    server
    {
        listen 80;
        server_name www.test.com;
        index index.html index.htm index.php;
        root /usr/local/www/data/;
        location ~ .*\.php?$
        {
            include fcgi.conf;
            fastcgi_pass 127.0.0.1:9000;
            fastcgi_index index.php;
        }

        log_format access '$remote_addr - $remote_user [$time_local] "$request" '
        '$status $body_bytes_sent "$http_referer" '
        '"$http_user_agent" $http_x_forwarded_for';
        access_log /usr/local/nginx/logs/access.log access;
    }
}
```

2,先将php.ini的配置中 `cgi.fix_pathinfo=1` 这样php-cgi方能正常使用SCRIPT\_FILENAME这个变量。

3,编辑fcgi.conf文件,加入

```

fastcgi_param GATEWAY_INTERFACE CGI/1.1;
fastcgi_param SERVER_SOFTWARE nginx;

fastcgi_param QUERY_STRING $query_string;
fastcgi_param REQUEST_METHOD $request_method;
fastcgi_param CONTENT_TYPE $content_type;
fastcgi_param CONTENT_LENGTH $content_length;

fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
fastcgi_param SCRIPT_NAME $fastcgi_script_name;
fastcgi_param REQUEST_URI $request_uri;
fastcgi_param DOCUMENT_URI $document_uri;
fastcgi_param DOCUMENT_ROOT $document_root;
fastcgi_param SERVER_PROTOCOL $server_protocol;

fastcgi_param REMOTE_ADDR $remote_addr;
fastcgi_param REMOTE_PORT $remote_port;
fastcgi_param SERVER_ADDR $server_addr;
fastcgi_param SERVER_PORT $server_port;
fastcgi_param SERVER_NAME $server_name;
# PHP only, required if PHP was built with --enable-force-cgi-redirect
#fastcgi_param REDIRECT_STATUS 200;

```

## 四,启动

### 1, 启动fcgi

```
/usr/bin/spawn-fcgi -a 127.0.0.1 -p 9000 -u www -f /usr/local/bin/php-cgi
```

#### 参数说明:

- f 指定调用FastCGI的进程的执行程序位置，根据系统上所装的PHP的情况具体设置
- a 绑定到地址addr
- p 绑定到端口port
- s 绑定到unix socket的路径path
- C 指定产生的FastCGI的进程数，默认为5（仅用于PHP）
- P 指定产生的进程的PID文件路径
- u和-g FastCGI使用什么身份（-u 用户 -g 用户组）运行，Ubuntu下可以使用www-data，其他的根据情况配置，如nobody、apache等

也可建立脚本

#### 1) ee /usr/bin/php-fastcgi

```
#!/bin/sh

/usr/bin/spawn-fcgi -a 127.0.0.1 -p 9000 -u www -f /usr/local/bin/php-cgi
```

2) `c hmod 755 /usr/bin/php-fastcgi`

3) `ee /usr/local/etc/rc.d/init-fastcgi`

```
#!/bin/bash

PHP_SCRIPT=/usr/bin/php-fastcgi
RETVAL=0
case "$1" in
start)
$PHP_SCRIPT
RETVAL=$?
;;
stop)
killall -9 php
RETVAL=$?
;;
restart)
killall -9 php
$PHP_SCRIPT
RETVAL=$?
;;
*)
echo "Usage: php-fastcgi {start|stop|restart}"
exit 1
;;
esac
exit $RETVAL
```

4) `chmod 755 /usr/local/etc/rc.d/init-fastcgi`

## 2.启动nginx

`nginx -t -c /usr/local/etc/nginx/nginx.conf` 测试配置是否正确

如果屏幕显示以下两行信息，说明配置文件正确：

```
the configuration file /usr/local/etc/nginx/nginx.conf syntax is ok
the configuration file /usr/local/etc/nginx/nginx.conf was tested successfully
```

启动:

```
nginx -c /usr/local/etc/nginx/nginx.conf
```

开机自动启动加入/etc/rc.conf

```
nginx_enable="YES"
```

## nginx参数:

\*

\*-c 为 Nginx 指定一个配置文件，来代替缺省的。

-t不运行，而仅仅测试配置文件。nginx 将检查配置文件的语法的正确性，并尝试打开配置文件中所引用到的文件。

-v显示 nginx 的版本。

-V显示 nginx 的版本，编译器版本和配置参数。

# nginx在ubuntu上的安装

---

## nginx在ubuntu上的安装

### 1、安装Nginx

```
apt-get install nginx
```

(要最新版本下载下来编译吧)

装完应该能正常运行了。如果之前有装APACHE要改下端口。。。或者直接

```
apt-get remove apache2  
/etc/init.d/nginx stop  
/etc/init.d/nginx start
```

### 2、安装php-cgi

```
apt-get install php-cgi
```

(要自定义安装的编译吧)

### 3、改php-cgi的配置

Ubuntu下是/etc/php5/cgi/php.ini

之前有安装过php的话会复制apache的配置文件

打开cgi.fix\_pathinfo选项：

```
cgi.fix_pathinfo=1;
```

### 4、改Nginx的fastcgi传递参数

Ubuntu下是/etc/nginx/fastcgi\_params

默认应该已经设置好了，内容差不多就下面那样：

**代码:**

```
fastcgi_param QUERY_STRING $query_string;
fastcgi_param REQUEST_METHOD $request_method;
fastcgi_param CONTENT_TYPE $content_type;
fastcgi_param CONTENT_LENGTH $content_length;fastcgi_param SCRIPT_NAME $fastcgi_script_name;

fastcgi_param REQUEST_URI $request_uri;
fastcgi_param DOCUMENT_URI $document_uri;
fastcgi_param DOCUMENT_ROOT $document_root;
fastcgi_param SERVER_PROTOCOL $server_protocol;
fastcgi_param GATEWAY_INTERFACE CGI/1.1;
fastcgi_param SERVER_SOFTWARE nginx/$nginx_version;
fastcgi_param REMOTE_ADDR $remote_addr;
fastcgi_param REMOTE_PORT $remote_port;
fastcgi_param SERVER_ADDR $server_addr;
fastcgi_param SERVER_PORT $server_port;
fastcgi_param SERVER_NAME $server_name;
# PHP only, required if PHP was built with --enable-force-cgi-redirect
fastcgi_param REDIRECT_STATUS 200;
```

5、创建VHost配置（这里只说Ubuntu下的，也就路径和包含文件目录的区别了）

在/etc/nginx/sites-available/下创建服务器配置文件比如myserver

```
ln -n /etc/nginx/sites-available/myserver /etc/nginx/sites-enabled/myserver
```

其实懒的话直接创建在enabled里也没问题 - 。 -

内容填：

**代码:**

```
server {
    listen 80;
    server_name myserver.com;
    access_log /var/log/nginx/myserver.access.log;location / {
    root /wwwroot/myserver;
    index index.php;
    autoindex off;
    }
    location ~ /\.php$ {
    include /etc/nginx/fastcgi_params;
    fastcgi_param SCRIPT_FILENAME /wwwroot/myserver/$fastcgi_script_name;
    fastcgi_pass 127.0.0.1:9000;
    fastcgi_index index.php;
    }
    # redirect server error pages to the static page /50x.html
    error_page 500 502 503 504 /50x.html;
    location = /50x.html {
    root /var/www/nginx-default;
    }
    # deny access to .htaccess files, if Apache' s document root
    location ~ /\.ht {
    deny all;
    }
}
```

## 6、安装spawn-fcgi

下载可到这里，这东西已经独立出来了

<http://redmine.lighttpd.net/projects/spawn-fcgi/wiki>

下完后解压编译

```
sudo ./configure --prefix=/usr/local
sudo make
sudo make install
```

## 7、启动spaw-fcgi

```
sudo spawn-fcgi -a 127.0.0.1 -p 9000 -u www-data -g www-data -f /usr/bin/php5-cgi -F 10
```

哦，对后面10进程不爽的人可以取消或是加到100

## 8、重启Nginx

```
/etc/init.d/nginx restart
```

## 9、定义下hosts就可以看结果啦

编辑/etc/hosts加入

```
127.0.0.1 myserver.com
```

然后打开浏览器就可以看结果啦~

有问题欢迎指出~~

# nginx在fedora上的安装

## nginx在fedora上的安装

原理：

安装nginx没什么好说的，安装php-cgi,让lighthttp的spawn-fcgi对其进行管理

### 1.用yum仓库安装所需的软件

```
#yum install -y php php-cgi nginx lighttpd-fastcgi
```

### 2.生成php-cgi的环境变量配置文件

```
# vim /etc/nginx/fastcgi_params
```

输入以下内容，并把该文件设置为相应属性，可以设置为0777

```
astcgi_param GATEWAY_INTERFACE CGI/1.1;
fastcgi_param SERVER_SOFTWARE nginx;
fastcgi_param QUERY_STRING $query_string;
fastcgi_param REQUEST_METHOD $request_method;
fastcgi_param CONTENT_TYPE $content_type;
fastcgi_param CONTENT_LENGTH $content_length;
fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
fastcgi_param SCRIPT_NAME $fastcgi_script_name;
fastcgi_param REQUEST_URI $request_uri;
fastcgi_param DOCUMENT_URI $document_uri;
fastcgi_param DOCUMENT_ROOT $document_root;
fastcgi_param SERVER_PROTOCOL $server_protocol;
fastcgi_param REMOTE_ADDR $remote_addr;
fastcgi_param REMOTE_PORT $remote_port;
fastcgi_param SERVER_ADDR $server_addr;
fastcgi_param SERVER_PORT $server_port;
fastcgi_param SERVER_NAME $server_name;
# PHP only, required if PHP was built with --enable-force-cgi-redirect
fastcgi_param REDIRECT_STATUS 200;
```

### 3.使用spawn-fcgi来控制php-fastcgi的进程



```
# /usr/bin/spawn-fcgi -a 127.0.0.1 -p 9000 -C 200 -u nginx -g nginx -f /usr/bin/php-cgi
```

其中，a绑定的地址，p是端口

-C是PHPFCGI的进程数,一般根据自己服务器的内存大小设置，4G服务器，如果是纯WEBSERVER的，可以设置200左右

#### 4.增加server

```
# vim /etc/nginx/nginx.conf
server{
    listen 80;
    server_name pylong.com [www.pylong.com](http://www.pylong.com/);#多个域名，用空格分开
    index index.html index.php index.htm;
    root /var/www/pylong.com;
    location ~ /\.php$
    {
        include /etc/nginx/fastcgi_params;
        fastcgi_pass 127.0.0.1:9000;
    }
}
```

一些更加详细的conf设置请参看nginx的维基，以及相关资料

一些提示：

yum安装的nginx,相关命令:service nginx start|stop|reload

把nginx添加到系统启动项里：chkconfig nginx on

其中，a绑定的地址，p是端口

-C是PHPFCGI的进程数,一般根据自己服务器的内存大小设置，4G服务器，如果是纯WEBSERVER的，可以设置200左右

#### 4.增加server

```
# vim /etc/nginx/nginx.conf
server{
    listen 80;
    server_name pylong.com [www.pylong.com](http://www.pylong.com/);#多个域名，用空格分开
    index index.html index.php index.htm;
    root /var/www/pylong.com;
    location ~ /\.php$
    {
    include /etc/nginx/fastcgi_params;
    fastcgi_pass 127.0.0.1:9000;
    }
}
```

一些更加详细的conf设置请参看nginx的维基，以及相关资料

一些提示：

yum安装的nginx,相关命令:service nginx start|stop|reload

把nginx添加到系统启动项里：chkconfig nginx on

让spawn-fcgi随系统自动启动。

```
vim /etc/rc.local
```

在文件最后加上

```
# /usr/bin/spawn-fcgi -a 127.0.0.1 -p 9000 -C 200 -u nginx -g nginx -f /usr/bin/php-cgi
```

如果php的session不可用，一般是因为 /var/lib/php/session这个目录的对于nginx不可写，把它所有者改为nginx相应用户已经用户组

转载请注明地址:<http://www.pylong.com/?p=6>

## nginx php-fpm安装配置

### nginx php-fpm安装配置

nginx本身不能处理PHP，它只是个web服务器，当接收到请求后，如果是php请求，则发给php解释器处理，并把结果返回给客户端。

nginx一般是把请求发fastcgi管理进程处理，fastcgi管理进程选择cgi子进程处理结果并返回被nginx

本文以php-fpm为例介绍如何使nginx支持PHP

## 一、编译安装php-fpm

### 什么是PHP-FPM

PHP-FPM是一个PHP FastCGI管理器，是只用于PHP的,可以在 <http://php-fpm.org/download>下载得到。

PHP-FPM其实是PHP源代码的一个补丁，旨在将FastCGI进程管理整合进PHP包中。必须将它patch到你的PHP源代码中，在编译安装PHP后才可以使用的。

新版PHP已经集成php-fpm了，不再是第三方的包了，推荐使用。PHP-FPM提供了更好的PHP进程管理方式，可以有效控制内存和进程、可以平滑重载PHP配置，比spawn-fcgi具有更多优点，所以被PHP官方收录了。在./configure的时候带 -enable-fpm参数即可开启PHP-FPM，其它参数都是配置php的，具体选项含义可以[查看这里](#)。

### 安装前准备

centos下执行

```
yum -y install gcc automake autoconf libtool make

yum -y install gcc gcc-c++ glibc

yum -y install libmcrypt-devel mhash-devel libxslt-devel \
libjpeg libjpeg-devel libpng libpng-devel freetype freetype-devel libxml2 libxml2-devel \
zlib zlib-devel glibc glibc-devel glib2 glib2-devel bzip2 bzip2-devel \
ncurses ncurses-devel curl curl-devel e2fsprogs e2fsprogs-devel \
krb5 krb5-devel libidn libidn-devel openssl openssl-devel
```

### 新版php-fpm安装(推荐安装方式)

```
wget http://cn2.php.net/distributions/php-5.4.7.tar.gz
tar zvxf php-5.4.7.tar.gz
cd php-5.4.7
./configure --prefix=/usr/local/php --enable-fpm --with-mcrypt \
--enable-mbstring --disable-pdo --with-curl --disable-debug --disable-rpath \
--enable-inline-optimization --with-bz2 --with-zlib --enable-sockets \
--enable-sysvsem --enable-sysvshm --enable-pcntl --enable-mbregex \
--with-mhash --enable-zip --with-pcre-regex --with-mysql --with-mysqli \
--with-gd --with-jpeg-dir

make all install
```

~~旧版手动打补丁php-fpm安装（旧版程序已经没有了，大家新版的吧，这里做个展示）

```
wget http://cn2.php.net/get/php-5.2.17.tar.gz
wget http://php-fpm.org/downloads/php-5.2.17-fpm-0.5.14.diff.gz
tar zvxf php-5.2.17.tar.gz
gzip -cd php-5.2.17-fpm-0.5.14.diff.gz | patch -d php-5.2.17 -p1
cd php-5.2.17
```

Nginx 中文官方文档

```
./configure --prefix=/usr/local/php -with-config-file-path=/usr/local/php/etc\  
-with-mysql=/usr/local/mysql\  
-with-mysqli=/usr/local/mysql/bin/mysql_config -with-openssl -enable-fpm -enable-mbstring\  
-with-freetype-dir -with-jpeg-dir -with-png-dir -with-zlib-dir -with-libxml-dir=/usr -enable-xml\  
-with-mhash -with-mcrypt -enable-pcntl -enable-sockets -with-bz2 -with-curl -with-  
curlwrappers\  
-enable-mbregex -with-gd -enable-gd-native-ttf -enable-zip -enable-soap -with-iconv -enable-  
bcmath\  
-enable-shmop -enable-sysvsem -enable-inline-optimization -with-ldap -with-ldap-sasl -enable-  
pdo\  
-with-pdo-mysql  
make all install~~
```

以上两种方式都可以安装php-fpm，安装后内容放在/usr/local/php目录下

```
root@SNDA-172-17-12-117:/usr/local/src/php-5.4.7# cd /usr/local/php  
root@SNDA-172-17-12-117:/usr/local/php# ls  
bin etc include lib php sbin var  
root@SNDA-172-17-12-117:/usr/local/php#
```

以上就完成了php-fpm的安装。

下面是对php-fpm运行用户进行设置

```
cd /usr/local/php  
cp etc/php-fpm.conf.default etc/php-fpm.conf  
vi etc/php-fpm.conf
```

修改

```
user = www-data  
group = www-data
```

如果www-data用户不存在，那么先添加www-data用户

```
groupadd www-data  
useradd -g www-data www-data
```

## 二、编译安装nginx

然后按照<http://www.nginx.cn/install> 安装nginx

## 三、修改nginx配置文件以支持php-fpm

nginx安装完成后，修改nginx配置文件为[nginx.conf](#)

其中server段增加如下配置，注意标红内容配置，否则会出现No input file specified.错误



```
apt-get install libxml2 libxml2-dev (ubuntu下)  
yum -y install libxml2 libxml2-devel (centos下)
```

## 1. Please reinstall the BZip2 distribution

```
wget http://www.bzip.org/1.0.5/bzip2-1.0.5.tar.gz  
tar -zxvf bzip2-1.0.5.tar.gz  
cd bzip2-1.0.5  
make  
make install
```

### 1. php的配置文件中有一行--with-mysql=/usr。

安装的时候提示：

```
configure: error: Cannot find MySQL header files under yes.  
Note that the MySQL client library is not bundled anymore.
```

这是由于安装mysql时没有安装mysql头文件，或者是路径指定不正确,php找不到mysql的头文件引起的错误提示。

解决方法。

#### (1.) 查看你的系统有没有安装mysql header

```
find / -name mysql.h
```

如果有。请指定--with-mysql=/跟你的正常路径。

如果没有。请看下一步。

#### (2.)redhat安装

```
rpm -ivh MySQL-devel-4.1.12-1.i386.rpm
```

#### (3.)ubuntu安装

```
apt-get install libmysqlclient15-dev
```

(4.)最后一步php的配置选项添加--with-mysql=/usr即可！

## 4.No input file specified.

```
location ~ \.php$ {
    root html;
    fastcgi_pass 127.0.0.1:9000;
    fastcgi_index index.php;
    fastcgi_param SCRIPT_FILENAME $document_root$fastcgi_script_name;
    include fastcgi_params;
}
```

## 1. 如果php configure时缺库，可以先安装库(ubuntu下)

```
sudo apt-get install make bison flex gcc patch autoconf subversion locate
sudo apt-get install libxml2-dev libbz2-dev libpcre3-dev libssl-dev zlib1g-dev libmcrypt-dev libmhash
-dev libmhash2 libcurl4-openssl-dev libpq-dev libpq5 libsycl0-dev
```

### 1. mcrypt.h not found. Please reinstall libmcrypt

```
apt-get install libmcrypt-dev
```

或者

```
cd /usr/local/src
wget http://softlayer.dl.sourceforge.net/sourceforge/mcrypt/libmcrypt-2.5.8.tar.gz
tar -zxvf libmcrypt-2.5.8.tar.gz
cd /usr/local/src/libmcrypt-2.5.8
./configure --prefix=/usr/local
make
make install
```

### 1. php-fpm 5.4.7 如何关闭 重启？

php 5.4.7 下的php-fpm 不再支持 php-fpm 以前具有的 /usr/local/php/sbin/php-fpm (start|stop|reload)等命令，需要使用信号控制：

master进程可以理解以下信号

INT, TERM 立刻终止 QUIT 平滑终止 USR1 重新打开日志文件 USR2 平滑重载所有worker进程并重新载入配置和二进制模块

示例：

php-fpm 关闭：

```
kill -INT `cat /usr/local/php/var/run/php-fpm.pid`
```

php-fpm 重启：

```
kill -USR2 `cat /usr/local/php/var/run/php-fpm.pid`
```

查看php-fpm进程数：

```
ps aux | grep -c php-fpm
```

8.命令行下执行php，提示找不到命令

```
-bash: /usr/bin/php: No such file or directory
```

```
vi /etc/profile
```

在文件底部增加一行配置

```
export PATH=/usr/local/php/bin:$PATH
```

保存退出

```
source /etc/profile
```



## 配置示例和方法

---

## 配置示例和方法

### 完整例子

---

#### 完整例子

#### 两个虚拟主机(纯静态-html 支持) - Two Virtual Hosts, Serving Static Files

```
http {
: server {
: listen      80;
: server_name www.domain1.com;
: access_log  logs/domain1.access.log main;
: location / {
: index index.html;
: root /var/www/domain1.com/htdocs;
: }
: }
: server {
: listen      80;
: server_name www.domain2.com;
: access_log  logs/domain2.access.log main;
: location / {
: index index.html;
: root /var/www/domain2.com/htdocs;
: }
: }
}
```

#### 虚拟主机标准配置(简化) - A Default Catchall Virtual Host

```
http {
: server {
: listen      80 default;
: server_name  _*;
: access_log  logs/default.access.log main;
: location / {
: index index.html;
: root /var/www/default/htdocs;
: }
: }
}
```

## 在父文件夹中建立子文件夹以指向子域名 - Wildcard Subdomains in a Parent Folder

这是一个添加子域名(或是当DNS已指向服务器时添加一个新域名)的简单方法。需要注意的是，我已经将FCGI配置进该文件了。如果你只想使服务器为静态文件服务，可以直接将FCGI配置信息注释掉，然后将默认主页文件变成index.html。

这个简单的方法比起为每一个域名建立一个 vhost.conf 配置文件来讲，只需要在现有的配置文件中增加如下内容：

This is just a really easy way to keep adding new subdomains, or to add new domains automatically when DNS records are pointed at the server. Note that I have included FCGI here as well. If you want to just serve static files, strip out the FCGI config and change the default document to index.html. Rather than creating a new vhost.conf file for every domain, just create one of these:

```

server {
: # Replace this port with the right one for your requirements
: # 根据你的需求改变此端口
: listen 80; #could also be 1.2.3.4:80 也可以是1.2.3.4:80的形式
: # Multiple hostnames seperated by spaces. Replace these as well.
: # 多个主机名可以用空格隔开，当然这个信息也是需要按照你的需求而改变的。
: server_name star.yourdomain.com *.yourdomain.com www.*.yourdomain.com;
: #Alternately: _ *
: #或者可以使用：_ * (具体内容参见本维基其他页面)
: root /PATH/TO/WEBROOT/$host;
: error_page 404 http://yourdomain.com/errors/404.html;
: access_log logs/star.yourdomain.com.access.log;
: location / {
: root /PATH/TO/WEBROOT/$host;
: index index.php;
: }
: # serve static files directly
: # 直接支持静态文件 (从配置上看来不是直接支持啊)
: location ~* ^.+.(jpg|jpeg|gif|css|png|js|ico|html)$ {
: access_log off;
: expires 30d;
: }
: location ~ .php$ {
: # By all means use a different server for the fcgi processes if you need to
: # 如果需要，你可以为不同的FCGI进程设置不同的服务信息
: fastcgi_pass 127.0.0.1:YOURFCGIPORTHERE;
: fastcgi_index index.php;
: fastcgi_param SCRIPT_FILENAME /PATH/TO/WEBROOT/$host/$fastcgi_script_name;
: fastcgi_param QUERY_STRING $query_string;
: fastcgi_param REQUEST_METHOD $request_method;
: fastcgi_param CONTENT_TYPE $content_type;
: fastcgi_param CONTENT_LENGTH $content_length;
: fastcgi_intercept_errors on;
: }
: location ~ /\.ht {
: deny all;
: }
: }

```

## 完整例子2

### 完整例子2

这是来自 [Nginx官方网站](#) 的一个例子。

```

#!nginx
: # 使用的用户和组
: user www www;
: # 指定工作进程数

```

```
worker_processes 2;
# 指定 pid 存放的路径
pid /var/run/nginx.pid;

# [ debug | info | notice | warn | error | crit ]
# 可以在下方直接使用 [ debug | info | notice | warn | error | crit ] 参数
error_log /var/log/nginx.error_log info;

events {
# 允许的连接数
connections 2000;
# use [ kqueue | rtsig | epoll | /dev/poll | select | poll ];
# 具体内容查看 http://wiki.codemongers.com/事件模型
use kqueue;
}

http {
include conf/mime.types;
default_type application/octet-stream;

log_format main '$remote_addr - $remote_user [$time_local] '
'"$request" $status $bytes_sent '
'"$http_referer" "$http_user_agent" '
'"$gzip_ratio"';

log_format download '$remote_addr - $remote_user [$time_local] '
'"$request" $status $bytes_sent '
'"$http_referer" "$http_user_agent" '
'"$http_range" "$sent_http_content_range"';

client_header_timeout 3m;
client_body_timeout 3m;
send_timeout 3m;

client_header_buffer_size 1k;
large_client_header_buffers 4 4k;

gzip on;
gzip_min_length 1100;
gzip_buffers 4 8k;
gzip_types text/plain;

output_buffers 1 32k;
postpone_output 1460;

sendfile on;
tcp_nopush on;
tcp_nodelay on;
send_lowat 12000;

keepalive_timeout 75 20;

#lingering_time 30;
#lingering_timeout 10;
```

```
#reset_timedout_connection on;

server {
    listen      one.example.com;
    server_name one.example.com www.one.example.com;

    access_log /var/log/nginx.access_log main;

    location / {
        proxy_pass      http://127.0.0.1/;
        proxy_redirect  off;

        proxy_set_header Host          $host;
        proxy_set_header X-Real-IP     $remote_addr;
        #proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;

        client_max_body_size 10m;
        client_body_buffer_size 128k;

        client_body_temp_path /var/nginx/client_body_temp;

        proxy_connect_timeout 90;
        proxy_send_timeout 90;
        proxy_read_timeout 90;
        proxy_send_lowat 12000;

        proxy_buffer_size 4k;
        proxy_buffers 4 32k;
        proxy_busy_buffers_size 64k;
        proxy_temp_file_write_size 64k;

        proxy_temp_path /var/nginx/proxy_temp;

        charset koi8-r;
    }

    error_page 404 /404.html;

    location /404.html {
        root /spool/www;

        charset on;
        source_charset koi8-r;
    }

    location /old_stuff/ {
        rewrite ^/old_stuff/(.*)$ /new_stuff/$1 permanent;
    }

    location /download/ {

        valid_referers none blocked server_names *.example.com;

        if ($invalid_referer) {
```

```
if ($http_upgrade != $scheme) {
    :#rewrite ^/ http://www.example.com/;
    :return 403;
    :}

:#rewrite_log on;

:# rewrite /download/*/mp3/*.any_ext to /download/*/mp3/*.mp3
:rewrite ^/(download/.*)/mp3/(.*)\..*$
:/$1/mp3/$2.mp3 break;

:root /spool/www;
:#autoindex on;
:access_log /var/log/nginx-download.access_log download;
:}

:location ~* ^.+\.(\.jpg|jpeg|gif)$ {
:root /spool/www;
:access_log off;
:expires 30d;
:}
:}
:}
```

## 虚拟主机

---

### 虚拟主机

### 两个虚拟主机(纯静态-html 支持) - Two Virtual Hosts, Serving Static Files

```

http {
: server {
: listen      80;
: server_name www.domain1.com;
: access_log  logs/domain1.access.log main;
: location / {
: index index.html;
: root /var/www/domain1.com/htdocs;
: }
: }
: server {
: listen      80;
: server_name www.domain2.com;
: access_log  logs/domain2.access.log main;
: location / {
: index index.html;
: root /var/www/domain2.com/htdocs;
: }
: }
}

```

## 虚拟主机标准配置(简化) - A Default Catchall Virtual Host

```

http {
: server {
: listen      80 default;
: server_name _*;
: access_log  logs/default.access.log main;
: location / {
: index index.html;
: root /var/www/default/htdocs;
: }
: }
: }
}

```

## 在父文件夹中建立子文件夹以指向子域名 - Wildcard Subdomains in a Parent Folder

这是一个添加子域名(或是当DNS已指向服务器时添加一个新域名)的简单方法。需要注意的是，我已经将FCGI配置进该文件了。如果你只想使服务器为静态文件服务，可以直接将FCGI配置信息注释掉，然后将默认主页文件变成index.html。

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well. If you want to just serve static files, strip out the CGI config and change the default document to index.html. Rather than creating a new vhost.conf file for every domain, just create one of these:

```
server {
: # Replace this port with the right one for your requirements
: # 根据你的需求改变此端口
: listen 80; #could also be 1.2.3.4:80 也可以是1.2.3.4:80的形式
: # Multiple hostnames seperated by spaces. Replace these as well.
: # 多个主机名可以用空格隔开，当然这个信息也是需要按照你的需求而改变的。
: server_name star.yourdomain.com *.yourdomain.com www.*.yourdomain.com;
: #Alternately: _ *
: #或者可以使用: _ * (具体内容参见本维基其他页面)
: root /PATH/TO/WEBROOT/$host;
: error_page 404 http://yourdomain.com/errors/404.html;
: access_log logs/star.yourdomain.com.access.log;
: location / {
: root /PATH/TO/WEBROOT/$host;
: index index.php;
: }
: # serve static files directly
: # 直接支持静态文件 (从配置上看来不是直接支持)
: location ~* ^.+.(jpg|jpeg|gif|css|png|js|ico|html)$ {
: access_log off;
: expires 30d;
: }
: location ~ .php$ {
: # By all means use a different server for the fcgi processes if you need to
: # 如果需要，你可以为不同的FCGI进程设置不同的服务信息
: fastcgi_pass 127.0.0.1:YOURFCGIPORTHERE;
: fastcgi_index index.php;
: fastcgi_param SCRIPT_FILENAME /PATH/TO/WEBROOT/$host/$fastcgi_script_name;
: fastcgi_param QUERY_STRING $query_string;
: fastcgi_param REQUEST_METHOD $request_method;
: fastcgi_param CONTENT_TYPE $content_type;
: fastcgi_param CONTENT_LENGTH $content_length;
: fastcgi_intercept_errors on;
: }
: location ~ /\.ht {
: deny all;
: }
: }
```

## 负载均衡

### 负载均衡

一个简单的负载均衡的示例，把www.domain.com均衡到本机不



同的端口，也可以改为均衡到不同的地址上。 >

```
http {
: upstream myproject {
: server 127.0.0.1:8000 weight=3;
: server 127.0.0.1:8001;
: server 127.0.0.1:8002;
: server 127.0.0.1:8003;
: }

: server {
: listen 80;
: server_name www.domain.com;
: location / {
: proxy_pass http://myproject;
: }
: }
}
```

## nginx防盗链

### nginx防盗链

```
location ~* \.(gif|jpg|png|swf|flv)$ {
root html
valid_referers none blocked *.nginxcn.com;
if ($invalid_referer) {
rewrite ^/ [www.nginx.cn](http://www.nginx.cn/)
#return 404;
}
}
```

前面的root可以不要如果你在server{}中有设置可以不需要设定

## HWLoadbalancerCheckErrors

### HWLoadbalancerCheckErrors

Some Hardware Load-balancers such Cisco's CSS and BigIP Products test the readiness of the backend Machines with SYN-ACK-RST.

This behavior causes a 400 error in nginx.

With the [GEO Module](#) and the **if-Statement** you can omit these entries:

```
http {  
  
    geo $lb {  
        default 0;  
        10.1.1.1/32 1; # LB IPs  
  
        10.1.1.2/32 1;  
    }  
  
    # ...  
  
    server {  
  
        # ...  
        access_log /path/to/log;  
        error_page 400 /400;  
  
        location = /400 {  
  
            if ($lb) {  
                access_log off;  
            }  
            return 400;  
        }  
  
    }  
}
```