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LINUX 7.2

ITOP 2.3.2——2832

特别感谢“冷夜星空”——HARDIE 给予的无私的帮助

Centos 下载（浙大镜像站点）：

<http://mirrors.zju.edu.cn/centos/>

母校的 FTP，支持一下

服务名：httpd

缺省端口：80

查询已运行的 yum 进程号

```
[root@localhost ~]# ps -aux | grep yum
```

```
root      6994   0.3   0.3 424376 24452 pts/2    Tl   22:48   0:00 /usr/bin/python  
/usr/bin/yum -y install httpd*
```

```
root      7005   0.0   0.0 112660   964 pts/2    S+   22:48   0:00 grep --color=auto yum
```

强制终止进程

```
[root@localhost ~]# kill -9 6994
```

```
[root@localhost ~]# yum -y install httpd
```

已加载插件：fastestmirror

mongodb-org-3.4

| 2.4 kB 00:00:00

updates

| 3.4 kB 00:00:00

Determining fastest mirrors

* base: mirrors.cn99.com

* extras: mirrors.cn99.com

* updates: mirrors.cn99.com

正在解决依赖关系

--> 正在检查事务

---> 软件包 httpd.x86_64.0.2.4.6-40.el7.centos.4 将被 安装

--> 正在处理依赖关系 httpd-tools = 2.4.6-40.el7.centos.4，它被软件包
httpd-2.4.6-40.el7.centos.4.x86_64 需要

--> 正在处理依赖关系 /etc/mime.types，它被软件包 httpd-2.4.6-40.el7.centos.4.x86_64 需
要

--> 正在处理依赖关系 libaprutil-1.so.0()(64bit)，它被软件包
httpd-2.4.6-40.el7.centos.4.x86_64 需要

--> 正在处理依赖关系 libapr-1.so.0()(64bit)，它被软件包 httpd-2.4.6-40.el7.centos.4.x86_64
需要

--> 正在检查事务

---> 软件包 apr.x86_64.0.1.4.8-3.el7 将被 安装

---> 软件包 apr-util.x86_64.0.1.5.2-6.el7 将被 安装

---> 软件包 httpd-tools.x86_64.0.2.4.6-40.el7.centos.4 将被 安装

---> 软件包 mailcap.noarch.0.2.1.41-2.el7 将被 安装

--> 解决依赖关系完成

依赖关系解决

已安装:

httpd.x86_64 0:2.4.6-40.el7.centos.4

作为依赖被安装:

apr.x86_64 0:1.4.8-3.el7

apr-util.x86_64 0:1.5.2-6.el7

httpd-tools.x86_64 0:2.4.6-40.el7.centos.4

mailcap.noarch 0:2.1.41-2.el7

完毕!

[1]+ 已杀死 yum -y install httpd*

systemctl start httpd.service

systemctl stop httpd.service

systemctl restart httpd.service

systemctl status httpd.service

systemctl enable httpd.service

systemctl disable httpd.service

service httpd start

service httpd stop

service httpd restart

service httpd status

检验 httpd 服务

yum -y install links

links http://localhost

安装 Apache, PHP, MySQL 以及 php 连接 mysql 库组件

yum -y install httpd php mysql mysql-server php-mysql

安装 apache 扩展

yum -y install httpd-manual mod_ssl mod_perl mod_auth_mysql

安装 php 的扩展

yum -y install php-gd php-xml php-mbstring php-ldap php-pear php-xmlrpc

可改为

yum -y install php-gd php-xml php-mbstring php-ldap php-pear php-xmlrpc php-soap

安装 MySQL 的扩展

yum -y install mysql-connector-odbc mysql-devel libdbi-dbd-mysql

/mnt/Packages/wget-1.14-10.el7_0.1.x86_64.rpm

```
yum -y install wget
```

```
wget http://downloads.sourceforge.net/project/itop/itop/2.3.1/iTop-2.3.1-2832.zip  
# unzip iTop-2.3.1-2832.zip -d /var/www/html/itop
```

```
/mnt/Packages/unzip-6.0-15.el7.x86_64.rpm  
# yum -y install unzip
```

```
# chown -R apache /var/www/html
```


```
# vi /etc/httpd/conf/httpd.conf  
ServerRoot "/etc/httpd"  
# vi /var/log/
```


The directory '/var/www/html/itop/web/log' exists but is not writable for the application.
chown -R apache /var/www/html


 **Welcome to iTop version 2.3.1**

iTop Installation Wizard

Prerequisites validation:  1 Error(s), 1 Warning(s).

 Missing PHP extension(s): [▶ soap](#).

 Missing optional PHP extension: mcrypt. Strong encryption will not be used.

 The current PHP Version (5.4.16) is greater than the minimum version required to run iTop, which is (5.3.6)

Sorry, the installation cannot continue. Please fix the errors and reload this page to launch the installation again.

Reload

```
[root@localhost var]# yum -y install php-soap
```

安装编译工具:

```
yum update
```

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

安装 mcrypt:

```
wget http://sourceforge.net/projects/mcrypt/files/MCrypt/2.6.8/mcrypt-2.6.8.tar.gz
```

```
tar -xvzf mcrypt-2.6.8.tar.gz
```

```
cd mcrypt-2.6.8
```

```
LD_LIBRARY_PATH=/usr/local/lib ./configure
```

```
make && make install
```

安装 php-mcrypt:

```
wget http://museum.php.net/php5/php-5.4.16.tar.gz
```

```
tar -xvzf php-5.4.16.tar.gz
```

```
cd php-5.4.16/ext/mcrypt
```

```
phpize
```

```
php-config
```

```
./configure
```

```
make && make install
```

```
vi /etc/php.ini
```

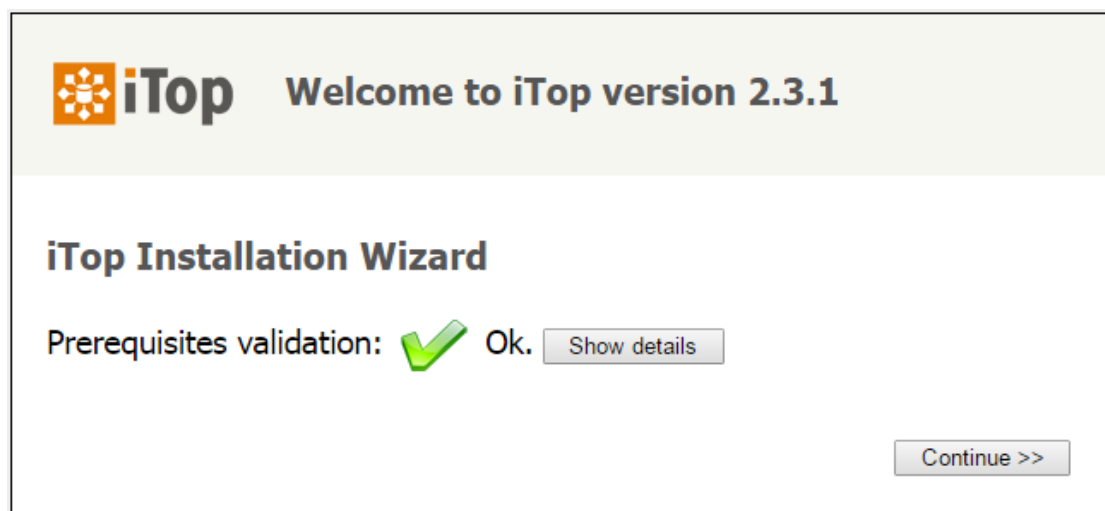
添加: extension=mcrypt.so

```
# yum -y install epel-release
```

```
# yum repolist
```

```
yum install libmcrypt libmcrypt-devel mcrypt mhash
```

```
# yum install php-mcrypt
```





Install or Upgrade choice

What do you want to do?

- ☒ Install a new iTop
- ☐ Upgrade an existing iTop instance

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License Agreement

Licenses agreements for the components of iTop

Components of iTop

- **iTop**, © 2010-2014 Combodo SARL is licensed under the **AGPL v3 license**. ([Details](#))
- **jQuery**, **jQuery UI**, © the jQuery Foundation is licensed under the **MIT license**. ([Details](#))
- **The jQuery tooltip plugin**, © Craig Thompson is licensed under the **MIT license**. ([Details](#))
- **Swift Mailer**, © Fabien Potencier is licensed under the **MIT license**. ([Details](#))
- **jQuery-File-Upload**, © Sebastian Tschan is licensed under the **MIT license**. ([Details](#))
- **PHP XLSXWriter**, © Mark Jones is licensed under the **MIT license**. ([Details](#))
- **TCPDF**, © Nicola Asuni is licensed under the **LGPL license**. ([Details](#))
- **fraprael**, © Chris Scott is licensed under the **MIT license**. ([Details](#))
- **Silex**, © Fabien Potencier is licensed under the **MIT license**. ([Details](#))
- **Bootstrap**, © Twitter is licensed under the **MIT license**. ([Details](#))
- **Font Awesome**, © Dave Gandy is licensed under the **MIT license**. ([Details](#))
- **DataTables**, © SpryMedia Ltd is licensed under the **MIT license**. ([Details](#))
- **jQuery Timepicker addon**, © Trent Richardson is licensed under the **MIT license**. ([Details](#))
- **D3 js**, © Mike Bostock is licensed under the **BSD license**. ([Details](#))
- **C3 js**, © Masayuki Tanaka is licensed under the **MIT license**. ([Details](#))
- **CKEditor**, © CKSource - Frederico Knabben is licensed under the **LGPL license**. ([Details](#))
- **scssphp**, © Leaf Corcoran is licensed under the **MIT license**. ([Details](#))
- **Emogrifier**, © Pelago is licensed under the **MIT license**. ([Details](#))

☐ I accept the terms of the licenses of the 18 components mentioned above.

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Database Configuration

Configuration of the database connection:

Database Server Connection

Server Name: E.g. "localhost", "dbserver.mycompany.com" or "192.142.10.23"

Login: The account must have the following privileges on the database:
SELECT, INSERT, UPDATE, DELETE, DROP, CREATE, ALTER,
CREATE VIEW, SUPER, TRIGGER

Password:

Warning: MySQL server's max_allowed_packet (1048576) is not big enough. Please, consider setting it to at least 2097652.

Database

☒ Create a new database:

☐ Use the existing database:

Use a prefix for the tables:

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Next >>



Administrator Account

Definition of the Administrator Account

Administrator Account

Login:

Password:

Confirm password:

Language:

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<http://www.graphviz.org/>

yum list available 'graphviz*'

yum install 'graphviz*'

which dot

 **Miscellaneous Parameters**

Additional parameters

Default Language
Default Language: Chinese (简体中文) ▼

Application URL
URL: http://192.168.30.189/itop/web/
Change the value above if the end-users will be accessing the application by another path due to a specific configuration of the web server.

Path to Graphviz' dot application
Path: /usr/bin/dot
▶ Graphviz is required to display the impact analysis graph (i.e. impacts / depends on).
✔ dot is present: dot - graphviz version 2.30.1 (20150306.0020)

Sample Data
☒ I am installing a **demo or test** instance, populate the database with some demo data.
☐ I am installing a **production** instance, create an empty database to start from.

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Configuration Management options



The options below allow you to configure the type of elements that are to be managed inside iTop.

- ☒ **Configuration Management Core**
All the base objects that are mandatory in the iTop CMDB: Organizations, Locations, Teams, Persons, etc.
- ☒ **Data Center Devices**
Manage Data Center devices such as Racks, Enclosures, PDUs, etc.
- ☒ **End-User Devices**
Manage devices related to end-users: PCs, Phones, Tablets, etc.
- ☒ **Storage Devices**
Manage storage devices such as NAS, SAN Switches, Tape Libraries and Tapes, etc.
- ☒ **Virtualization**
Manage Hypervisors, Virtual Machines and Farms.

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**iTop**

Service Management options



Select the choice that best describes the relationships between the services and the IT infrastructure in your IT environment.

**Service Management for Enterprises**

Select this option if the IT delivers services based on a shared infrastructure. For example if different organizations within your company subscribe to services (like Mail and Print services) delivered by a single shared backend.

**Service Management for Service Providers**

Select this option if the IT manages the infrastructure of independent customers. This is the most flexible model, since the services can be delivered with a mix of shared and customer specific infrastructure devices.

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Tickets Management options



Select the type of tickets you want to use in order to respond to user requests and incidents.

- ☐ **Simple Ticket Management**
Select this option to use one single type of tickets for all kind of requests.
 - ☒ **Enhanced Customer Portal**
Replace the built-in customer portal with a more modern version, working better with hand-held devices and bringing new features
- ☒ **ITIL Compliant Tickets Management**
Select this option to have different types of ticket for managing user requests and incidents. Each type of ticket has a specific life cycle and specific fields
 - ☒ **User Request Management**
Manage User Request tickets in iTop
 - ☒ **Incident Management**
Manage Incidents tickets in iTop
 - ☒ **Enhanced Customer Portal**
Replace the built-in customer portal with a more modern version, working better with hand-held devices and bringing new features
- ☐ **No Tickets Management**
Don't manage incidents or user requests in iTop

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Change Management options



Select the type of tickets you want to use in order to manage changes to the IT infrastructure.

- ☐ **Simple Change Management**
Select this option to use one type of ticket for all kind of changes.
- ☒ **ITIL Change Management**
Select this option to use Normal/Routine/Emergency change tickets.
- ☐ **No Change Management**
Don't manage changes in iTop

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Additional ITIL tickets



Pick from the list below the additional ITIL processes that are to be implemented in iTop.



Known Errors Management

Select this option to track "Known Errors" and FAQs in iTop.



Problem Management

Select this option track "Problems" in iTop.

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**iTop****Ready to install**

iTop version 2.3.1 is about to be installed into the **new** database **itop231** on the server **192.168.30.189**.

Installation Parameters

— Data Model Configuration

Other Parameters

Default language: ZH CN
URL to access the application: http://192.168.30.189/itop/web/
Graphviz' dot path: /usr/bin/dot
Sample data will be loaded into the database.

Administrator Account

Login: admin
Password: admin
Language: ZH CN

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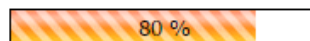
Install !

**iTop****Ready to install**

iTop version 2.3.1 is about to be installed into the **new** database **itop231** on the server **192.168.30.189**.

Progress of the installation

Loading data



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Install !

Manual operations required

In order to complete the installation, the following manual operations are required:

- ▶ [Manual instructions for Tickets Management](#)

Congratulations for installing iTop



Stay in touch with the iTop community

Get the latest news about iTop: new features, online webinars, etc...



Be backed by the iTop experts.

Get enterprise grade support for your application, worry free upgrades, and more...



Whether you want get the most of your iTop installation, tailor iTop for your very own purpose or become an iTop guru...

Enter iTop

<http://192.168.30.189/itop/web//documentation/itop-tickets.htm>



欢迎来到 iTop!

在继续之前, 确定您自己的身份

用户名称:

密码:



进入 iTop

[Forgot your password?](#)

**配置项**

 业务流程: 0

[创建一个新的 业务流程](#)
[搜索 业务流程 对象](#)

 应用方案: 4

[创建一个新的 应用方案](#)
[搜索 应用方案 对象](#)

 联系人: 17

[创建一个新的 联系人](#)
[搜索 联系人 对象](#)

 位置: 3

[创建一个新的 位置](#)
[搜索 位置 对象](#)

 合同: 1

[创建一个新的 合同](#)
[搜索 合同 对象](#)

 服务器: 4

[创建一个新的 服务器](#)
[搜索 服务器 对象](#)

 网络设备: 2

[创建一个新的 网络设备](#)
[搜索 网络设备 对象](#)

**Helpdesk**
All open requests

New	Assigned	Escalated TTO	Escalated TTR	Resolved
-	-	-	-	-

我的请求

没有对象可显示.

[创建一个新的 User Request](#)

其他:
Centos 6.6 下



Welcome to iTop version 2.3.1

iTop Installation Wizard

Prerequisites validation:  1 Error(s), 0 Warning(s).



Error: The current PHP Version (5.3.3) is lower than the minimum version required to run iTop, which is (5.3.6)



Required PHP extension(s): dom, hash, iconv, json, mysqli, pcre, session, simplexml, soap, zip.



Optional PHP extension(s): gd, ldap, mcrypt.

Sorry, the installation cannot continue. Please fix the errors and reload this page to launch the installation again.

Reload

查看 yum 支持的版本:

```
yum list php* |grep php-devel
```

```
rpm -Uvh http://repo.webtatic.com/yum/el6/latest.rpm
```

```
yum install php55w
```

```
yum install php56w
```

修改 ITOP LOGO 图片



<http://192.168.30.181/itop/web/images/itop-logo.png?itopversion=2.3.1>

<http://192.168.30.181/itop/web/images/logo-combodo.png?itopversion=2.3.1>

<http://192.168.30.181/itop/web/>为 itop 的 web 根目录

IE 类浏览器里在图片上选取右键菜单——属性



GOOGLE CHROME 浏览器里在图片上选取右键菜单——复制图片地址

FIREFOX 浏览器里在图片上选取右键菜单——复制图片地址|查看图片属性

制作同名 png 文件在服务器端覆盖（先对原图片备份）

LINUX 下重启 Apache 服务

```
# service httpd restart
```

```
# systemctl restart httpd
```

然后清除客户端浏览器的缓存内容或者是使用不同的浏览器确认修改



所有组织



欢迎

- 欢迎
- My Shortcuts

配置管理

Helpdesk

Incident Management

问题管理

变更管理

服务管理

数据管理

管理工具



ITOP 插件安装:

```
# yum list 7zip
```

```
# yum list p7zip
```

```
# yum -y install p7zip
```

```
/var/www/html/itop/web/extensions
```

```
# rpm -qa | grep p7zip | xargs rpm -ql
```

解压在同一文件夹下

```
# 7za e ~/itop_plugin.7z
```

按照压缩包里的目录结构解压

```
# 7za x ~/itop_plugin.7z
```

```
# chown -R apache *
```

```
# systemctl restart httpd
```

```
[root@localhost ~]# cd /var/www/html/itop/web/conf/production/
```

```
[root@localhost production]# ls
```

config-itop.php

```
[root@localhost production]# ls -l
```

总用量 12

```
-r--r--r-- 1 apache apache 8679 12 月 5 01:08 config-itop.php
```

```
[root@localhost production]# chmod +w config-itop.php
```

```
[root@localhost production]# ls -l
```

总用量 12

```
-rw-r--r-- 1 apache apache 8679 12 月 5 01:08 config-itop.php
```

```
[root@localhost production]#
```

<http://192.168.30.181/itop/web/setup/>

**iTop**

Install or Upgrade choice

What do you want to do?

- ☐ Install a new iTop
- ☒ Upgrade an existing iTop instance

Location on the disk:

/var/www/html/itop/web/

Database Server Connection

Server Name: E.g. "localhost", "dbserver.mycompany.com" or "192.142.10.23"

Login: The account must have the following privileges on the database:
SELECT, INSERT, UPDATE, DELETE, DROP, CREATE, ALTER, CREATE
VIEW, SUPER, TRIGGER

Password:

Warning: MySQL server's max_allowed_packet (1048576) is not big enough. Please, consider setting it to at least 20972020.

Database

Database Name:

Use a prefix for the tables:

☒ Backup the iTop database before upgrading

Save the backup to:

✔ mysqldump is present: mysqldump Ver 10.14 Distrib 5.5.50-MariaDB, for Linux (x86_64)
26.84 Gb free in /var/www/html/itop/web/data

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安装 new 相当于初始化数据库



Configuration Management options



The options below allow you to configure the type of elements that are to be managed inside iTop.

- ☒ **Configuration Management Core**
All the base objects that are mandatory in the iTop CMDB: Organizations, Locations, Teams, Persons, etc.
- ☒ **Data Center Devices**
Manage Data Center devices such as Racks, Enclosures, PDUs, etc.
- ☒ **End-User Devices**
Manage devices related to end-users: PCs, Phones, Tablets, etc.
- ☒ **Storage Devices**
Manage storage devices such as NAS, SAN Switches, Tape Libraries and Tapes, etc.
- ☒ **Virtualization**
Manage Hypervisors, Virtual Machines and Farms.

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Select additional extensions to install. You can launch the installation again to install new extensions, but you cannot remove already installed extensions.

- ☐ **Auto closure of Incident and UserRequest**
- ☐ **Tickets synchronization via e-mail**
- ☐ **Object copier**
- ☐ **Ticket Creation from Emails (Standard)**
- ☐ **Stencils**
- ☐ **Network Management**
- ☐ **Customer Survey**
- ☐ **Data Synchronization Dashboard**
- ☐ **IP Management**
- ☐ **IPv6 Management**
- ☐ **Dispatch of Incidents**
- ☐ **Dispatch of User Request**
- ☐ **Send Ticket Log Updates by Email**
- ☐ **Request Templates**

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Select additional extensions to install. You can launch the installation again to install new extensions, but you cannot remove already installed extensions.

☐ Object Copier

☐ Ticket Creation from Emails (Standard)

☐ Stencils

☐ Network Management

☐ Customer Survey

☐ Data Synchronization Dashboard

☐ IP Management

☐ IPv6 Management

☐ Dispatch of Incidents

☐ Dispatch of User Request

☐ Send Ticket Log Updates by Email

☐ Request Templates

☐ Helpdesk Precanned Replies

☐ Enhanced Approval Schemes

☐ Helpdesk Precanned Replies Extension

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Manual operations required

In order to complete the installation, the following manual operations are required:

[Manual instructions for Tickets Management](#)

Congratulations for installing iTop

Your backup is ready



[Download iTop-backup-2016-12-14.zip](#)



Stay in touch with the iTop community

Get the latest news about iTop: new features, online webinars, etc...



Be backed by the iTop experts.

Get enterprise grade support for your application, worry free upgrades, and more...



Whether you want get the most of your iTop installation, tailor iTop for your very own purpose or become an iTop guru...



[Enter iTop](#)

Completing the iTop installation for workflow management

Overview

In order to operate properly, iTop maintenance operations and asynchronous tasks must be executed on a regular basis. In order to ease the installation, all the background tasks have been grouped to be launched from a single file: `webservices/cron.php`

The following features require the activation of `cron.php`

- **Asynchronous emails.** By default, this option is disabled. To enable it, set 'email_asynchronous' to 1 in the configuration file
- **Check ticket SLA.** Tickets reaching the limits will be passed into Escalation TTO/TTR states

For more information about `cron.php`, check the [iTop Wiki](#)

Scheduling `cron.php` on Windows

1. Edit the file `<itop root>/webservices/cron.params` to set the credentials used for cronified tasks (requires administrator privileges)
2. Edit the file `<itop root>/webservices/cron.cmd`, and set the relevant path for your installation of PHP. If you care about security, it is recommended to change also the path to the parameters file `<itop root>/webservices/cron.params` and move this file to a place where its content is not served by the web server.
3. Schedule the execution of `cron.cmd`:

```
schtasks.exe /create /tn "iTop CRON" /sc minute /mo 1 /tr "\"<itop root>/webservices/cron.cmd\""
```

Scheduling `cron.php` on Linux/Unix

1. Edit the file `<itop root>/webservices/cron.params` to set the credentials used for cronified tasks (requires administrator privileges)
2. If you care about security: move the file `<itop root>/webservices/cron.params` into a directory not in the scope of the web server (Apache), and make it be readable only by the account that will execute the cron
3. Edit the crontab and add the following line:

```
* * * * * /usr/bin/php <itop root>/webservices/cron.php  
--param_file=<itop root>/webservices/cron.params
```



所有组织

欢迎

配置管理

IP Management

- IP Space
 - New IP object
 - Search for IP object
- IPv4 Shortcuts
 - Subnet Blocks
 - Subnets
 - IP Ranges
 - IP Addresses
- IPv6 Shortcuts
 - Subnet Blocks
 - Subnets
 - IP Ranges
 - IP Addresses

Helpdesk

- Overview
- New user request
- Search for user requests
- Shortcuts
 - Requests assigned to me
 - Requests dispatched to my teams
 - Hot Requests
 - All open requests
 - My support calls
- Requests waiting for approval
- Customer surveys
 - Quizzes
 - Surveys

服务管理

- 概览
- 客户合同
- 供应商合同
- Service families
- 服务
- 服务子级类目
- SLAs
- SLTs
- Delivery models
- Request templates
- Coverage Windows
- Holiday Calendars
- Holidays
- Approval rules
- Precanned replies
- Precanned replies categories

数据管理

- CSV 导入
- 审计
- 目录
 - 组织
 - Typology configuration
 - Global IP Settings



809758521

调整 PHP 文件上传大小:

致命错误, iTop 无法继续.

错误: 上传文件太大. (允许的最大限制是 2M). 检查您的 PHP configuration 中 upload_max_filesize 和 post_max_size..

```
# vi /etc/php.ini
```

```
;;;;;;;;;;
```

```
; File Uploads ;
```

```
;;;;;;;;;;
```

```
; Whether to allow HTTP file uploads.
```

```
; http://php.net/file-uploads
```

```
file_uploads = On
```

```
; Temporary directory for HTTP uploaded files (will use system default if not  
; specified).
```

```
; http://php.net/upload-tmp-dir
```

```
;upload_tmp_dir =
```

```
; Maximum allowed size for uploaded files.
```

```
; http://php.net/upload-max-filesize
```

```
upload_max_filesize = 20M
```

; Maximum number of files that can be uploaded via a single request
max_file_uploads = 20

; Maximum size of POST data that PHP will accept.
; Its value may be 0 to disable the limit. It is ignored if POST data reading
; is disabled through enable_post_data_reading.
; http://php.net/post-max-size
post_max_size = 8M

```
# unzip toolkit/iTopDataModelToolkit-2.3.zip -d .  
# chown -R apache *  
# systemctl restart httpd  
浏览器：  
http://192.168.30.181/itop/web/toolkit
```

=====

给有缘的你

注：后期开发的内容带续集了。