

iDNA

Foundation

Setup Guide



SETUP GUIDE

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Welcome to panagenda iDNA!



This guide will help you to set up panagenda iDNA in no time. If you have any comments or suggestions, please contact us at support@panagenda.com.

About iDNA

panagenda iDNA is a virtual appliance, which collects various infrastructure¹ information and collates it into meaningful data for use by IT departments and management. These environment reports allow you to see which applications are being actively used, which servers are barely used or not used at all, what end-user usage patterns are like, when load peaks occur, and much more.

Analysis results are possible for, but not limited to, virtually any question pertaining to IBM Notes client traffic, IBM Domino servers and application usage.

1. Data regarding usage from log.nsf, existing data from the catalog.nsf and directories, address book information for the differentiation of mail databases and applications and for recognizing circular groups.

System Requirements

Host Software

panagenda iDNA Applications comes as a virtual appliance including its own operating system based on the popular CentOS Linux distribution. No operating system needs to be prepared for the installation on the virtualization software side.

Virtual appliances are available for:

- **VMWare vSphere - ESXi** (recommended for production)



For compatibility reasons, our appliances are configured for ESXi 6.0 and Workstation 11. If you run a newer version, we recommend to upgrade the virtual machine hardware version.

- **Microsoft Hyper-V**

The underlying hardware and OS need to have VT-x support enabled (in BIOS). This is mainly relevant in scenarios where Workstation act as host software. Detailed information about operating system requirements can be found on the respective product pages: www.vmware.com/products/

Virtual Hardware

Minimum hardware requirements for production environment:

- Enterprise grade server hardware for all components
- CPU: 4 Cores
- 8 GB - 16 GB of RAM available to the virtual appliance
- 120 GB of free disk space for virtual appliance

Resource requirements vary depending on the size of the analyzed environment. panagenda and selected panagenda iDNA business partners can help you evaluate the optimum hardware specifications for your environment. As a rule of thumb a measurement's disk space requirements in megabytes can be calculated as follows: amount of servers multiplied by days of collection multiplied by ten.

For example: 40 servers * 8 days collected * 10MB = 3,200 MB

See "Extending Disk Space" on page 25 on how to extend disk space. It is not an option to add an additional disk to the system in order to provide more disk space.

Access and Permissions

IBM Domino Notes:

The following access to the Domino environment is required:

- **Single Notes ID file with access (cross certification) to all servers in scope**
 - Reader access to at least one Domino Directory per Domain
 - Reader access to all servers' log.nsf databases
 - Reader access to all servers' catalog.nsf databases
 - "Full Remote Console Administrator" access on all servers
 - Reader access to all servers' domlog.nsf databases where enabled

Domino server requirements:

- **Statlog task scheduled on all servers**
- **Catalog task scheduled on all servers**
- **INI entry LOG_DISABLE_SESSION_INFO must not be set to 1**
- **"Domlog.nsf" enabled and "Access log format" set to "Extended Common"**
(names.nsf > Server Document > Internet Protocols... > HTTP)
MIME types "image/*", "text/css" and "text/javascript" can be excluded

Network (Firewall/Ports):

Connections to and from the appliance need to be allowed for the following services:

Outbound (originating in virtual appliance):

- **Notes RPC** to Domino servers for data collection (TCP 1352)
- **HTTP/HTTPS** to Domino servers for data collection (TCP 80/443)

Inbound (accessing virtual appliance):

- **HTTP/HTTPS** for configuration and reports (TCP 80/443)
- **SSH** for system configuration and application tuning (TCP 22)
- **VNC** for system configuration and Notes client access (TCP 5901)
- **Optional: PostgreSQL** for data warehouse access where enabled (TCP 5432)

It is recommended that the iDNA application owner has access to the console of the virtual machine (e.g. via vSphere client).

Internet access for the appliance is not mandatory, but it is recommended to grant at least proxy access to *.panagenda.com and your defined CentOS repository for security and application updates.



iDNA Applications requires the following network segments for internal communication:

- 172.17.0.1/16

- 172.18.0.1/16.

*These two IP address ranges **MUST NOT** be routable in your production network!*

Please see <https://www.panagenda.com/kbase/x/mAK0AQ> if they are routable.

Client System Requirements

Hardware, Operating System and Software Requirements:

The panagenda iDNA web interface is based on HTML5 and therefore accessible on any **HTML5 capable device**.

- We recommend the following browsers in latest **64-bit** versions: **Chrome** and **Firefox**

Browser Security and Network Access:

No special web browser security settings are required to run the panagenda iDNA web interface.

To access the iDNA web interface, you need to have access to the panagenda iDNA appliance via TCP/IP, Port 80 (HTTP) and Port 443 (HTTPS).

GETTING STARTED

Setup



We recommend running iDNA production systems in a VMWare vSphere/ESX enterprise environment. An additional option is VMWare Workstation which is mainly targeted at temporary evaluation environments and are not supported for production use.

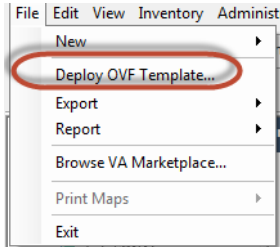
Files required for initial setup:

- **panagenda_idna_vmware_esx.ova** – image file directly deployable via the VMWare vSphere client. It holds the iDNA virtual appliance in open virtualization format (OVF)
Download URL:
https://files.panagenda.com/iDNA/panagenda_idna_vmware_esx.ova
- **panagenda_idna_hyperv_vhd.7z** – 7z archive which contains the iDNA virtual appliance in Microsoft Hyper-V format
Download URL:
https://files.panagenda.com/iDNA/panagenda_idna_hyperv_vhd.7z
- **iDNA.lic** is your panagenda iDNA license file. Place it in a folder on your local hard drive. This file will be uploaded to the virtual appliance in a later step using the panagenda iDNA web interface
- **Notes ID** according to the requirements listed under “IBM Domino Notes:” on page 6

Launching iDNA using virtualization software

Recommended: VMWare vSphere/ESX via OVA

Open VMWare ESX, ESXi or vSphere and select:



The Deploy OVF Template dialog will open:

1. **Source:** Specify the location where you saved the iDNA OVA file on your hard drive – for example: `C:/Temp/panagenda_idna_vmware_esx.ov`
2. **OVF Template Details:** In this step you can inform yourself about the iDNA version you are about to deploy. When you are done, just click on Next
3. **Name and Location:** Is the next relevant step for deploying iDNA. We recommend to name this template “**panagenda iDNA**”
4. **Storage:** Then you have to select a destination storage for the virtual machine files.
5. **Disk Format:** In this step, please select the storage format for the virtual disks. We recommend to choose “Thick Provision Eager Zeroed”
6. **Network Mapping:** Then select the network the deployed iDNA template should use.
7. **Ready to Complete:** In the final step you are shown the options you set up. Click on Finish if you are satisfied with your setting to start the deployment task.

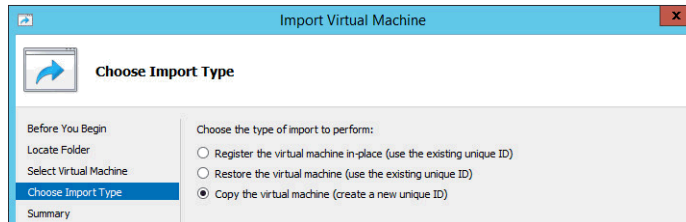
Alternative: Microsoft Hyper-V

- Extract the file `panagenda_idna_hyperv_vhd.7z`
- Start Hyper-V Manager
- Right-click on your server and select “Import Virtual Machine” from the context menu

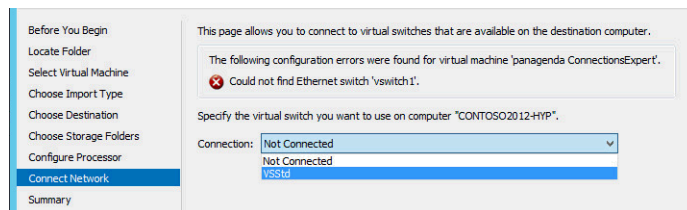


- Click **Next** on “Before you Begin” screen

- Select the folder that contains the extracted files and click **Next**
- Select the iDNA image
- Select “Copy the virtual machine (create a new unique ID)”



- Click **Next** in the “Choose Destination” screen, unless you want to set the folders individually
- Select the folder where you want to store the virtual hard disk
- Click **Next** into the “Configure Processor” step – please don’t change the processor settings
- Specify a network connection



Select **Finish** on the summary screen to start the copy

Alternative: VMWare Workstation/Player via VMX

- Start VMWare Workstation
- Open Virtual Machine

Select the file **panagenda_idna_vmware_esx.ova**

Starting the Virtual Appliance



For VMWare products, we recommend raising the hardware version of the virtual machine according to your environment.

Further information: <https://kb.vmware.com/s/article/1010675>

Welcome Screen and IP Address

After starting up the appliance for the first time, you should be presented with a panagenda iDNA welcome screen. If your network has a public DHCP server available, the system might already have acquired an IP address and will display the URL. **Use the shown IP address (interface URL) in your web browser to connect to the panagenda iDNA web interface.** If DHCP is not available within your network or the panagenda iDNA appliance did not acquire any IP address, you have to configure the panagenda iDNA appliance network settings (see "Network Settings:" on page 14).

```
Please review the 'Setup Guide' !
IP Address: 192.168.111.134
-----
localhost login:
```

Appliance Login

iDNA provides a console and a graphical user interface in order to configure operating system level settings like network, time and time zone settings.

Default login information:

user "root" with password "config"

Changing default credentials:



Default credentials are supplied for setup and initial configuration. It is not recommended to keep using them after the appliance has been set up.

We strongly suggest changing the default credentials for these components:

- Linux user "root" (using the "passwd" command)
- VNC server (<https://www.panagenda.com/kbase/x/egK0AQ>)
- Web user "config" (<https://www.panagenda.com/kbase/x/owK0AQ>)

Console

After login, basic information, such as disk space, system time and IP address, are shown:

```
Welcome to panagenda iDNA

Please review the 'Setup Guide'!
Execute 'vncserver' to access GUI using 10.10.80.10:5901

Services running:
panagenda_nginx      Up 5 minutes (healthy)
panagenda_data_miner  Up 4 minutes (healthy)
panagenda_cron        Up 5 minutes (healthy)
panagenda_idna        Up 5 minutes (healthy)
panagenda_pac         Up 5 minutes (healthy)
panagenda_postgres    Up 5 minutes (healthy)

System is up since 5 minutes

System time is Tue Apr  9 08:23:08 CEST 2019

Diskspace available:
Use% Avail Mounted
25% 13G /
1% 60G /opt/panagenda/pgdata
1% 5.0G /opt/panagenda/logs
9% 20G /opt/panagenda/appdata
```

Graphical User Interface

There are two ways to use the GUI to configure your iDNA appliance:

1 Local

In order to start the GUI locally, enter the command **"startx"**

To start the GUI automatically when iDNA is booted, please enter the following command: **"systemctl set-default graphical.target"**

2 Remote Access via VNC



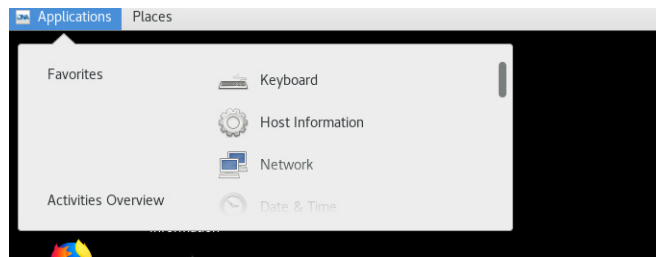
Please note that remote VNC access is only possible if the iDNA appliance received an IP address via DHCP.

Please refer to <https://www.panagenda.com/kbase/x/egK0AQ> (Remote Appliance Access) for more details on VNC access.

GUI Basics



The Applications menu provides access to all required applications:



You can access all required applications by using the desktop icons, too.

To check an established internet connection, a **web browser** (Mozilla Firefox) is available on the panagenda iDNA appliance.

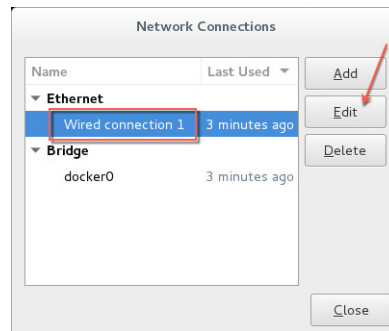
You can use the **terminal window** to check if your TCP/IP connection is established, using Linux *ping* and *ifconfig* command. For more information about *ping* and *ifconfig* commands, type *man ping* or *man ifconfig* in the terminal console window.

panagenda iDNA log files can be found within the `/opt/panagenda/logs` directory. The main log file (`idna/idna.log`) holds essential information about panagenda iDNA runtime behavior. Use the **Files** application to navigate to these log files.

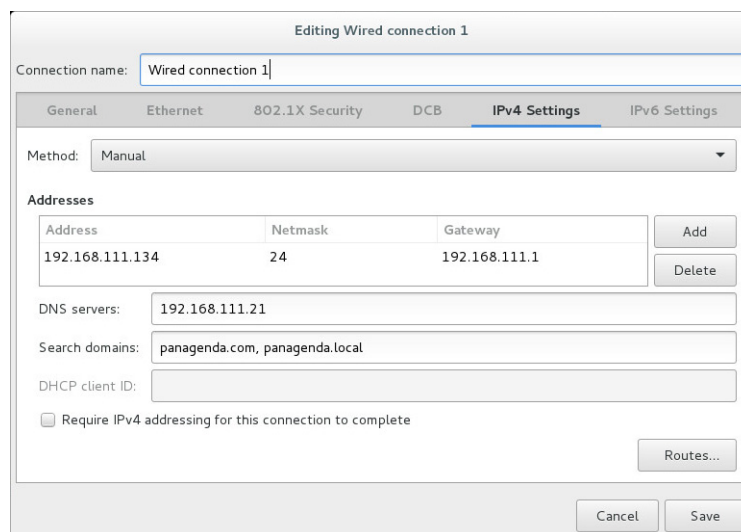
To check the panagenda iDNA appliances system behavior, you can use the installed **system monitor**.

Network Settings:

To change the IP address and DNS configuration please click on the **Network** icon. Select the *Ethernet* connection and click on *Edit*:



Go to the IPv4 Settings tab and select *Manual* from the *Method* drop down menu to configure the network settings as required:

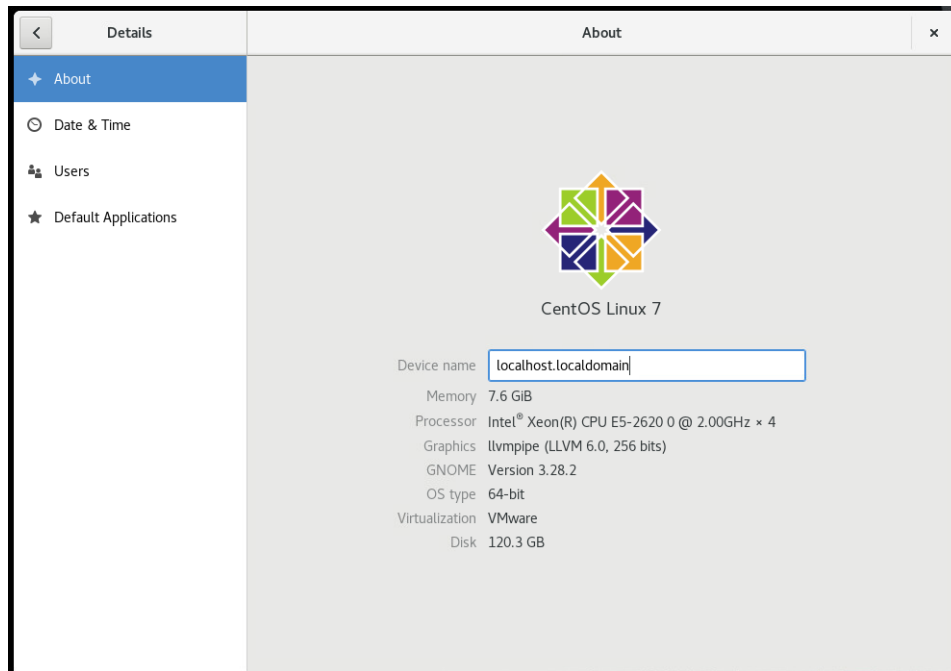


TIP: If you configure "DNS Search domains", not full qualified names will also be resolved.



The virtual appliance **MUST** be able to resolve its own host name. Please verify that by opening a terminal window (click "Terminal" on the desktop) and using the ping command. It is recommended that both host/common name as well full qualified domain name are pingable. See "Network (Firewall/Ports):" on page 6 for incoming and outgoing network access requirements.

When changing the host name (default is "iDNA") in the **Host Information** application, please make sure to adapt the host alias properties for 127.0.1.1 in /etc/hosts. This can be done using the **gedit** application. It is recommended that both host name and full qualified domain name are entered here:



Time Zone Settings:

Please check the time zone settings of the appliance, use the **Time and Date** application to adjust.



It is very important to adjust the appliance's time zone!



Please reboot the appliance after changing the host name or date/time settings as the web server and database system require a clean start with the new configuration.

Web Interface

Please enter **https://<FQDN or IP>** in your browser to connect to the panagenda iDNA web interface. For further information about your iDNA appliance's IP address, please refer to "Welcome Screen and IP Address" on page 11 and for further information about its hostname (FQDN), please refer to "Network Settings:" on page 14.

panagenda iDNA uses HTTPS for secure communication between its appliance and its web interface, so you have to accept the security certificate, to continue.

Login

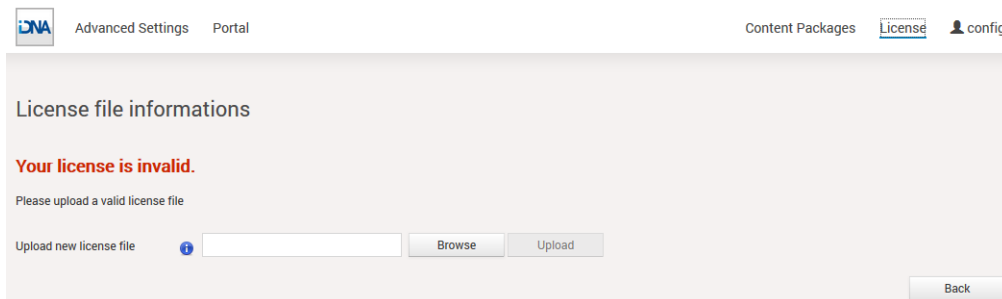
By default, a user with administrative credentials is available to access the panagenda iDNA web interface.

Default login information:

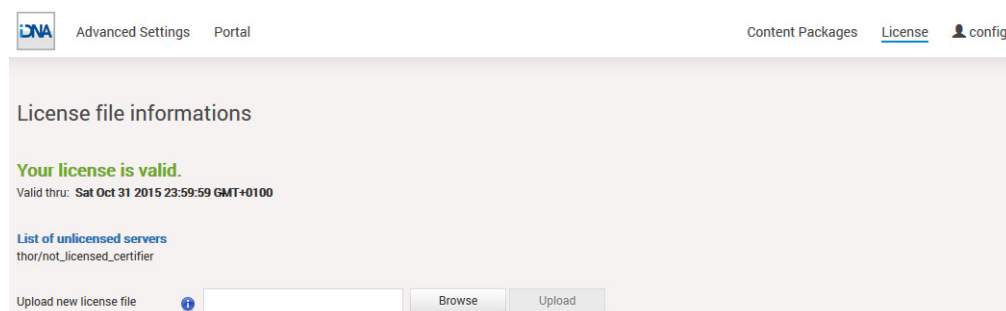
- User "config" with password "config"

License File Upload

Please go to **https://<FQDN or IP>/idna/cfgc#license** and upload your panagenda iDNA license file when you connect to your iDNA appliance for the first time.



Note: Servers discovered, which are not covered by the license, will be shown in the list of unlicensed servers.



Content Packages – Basic Configuration

The basic configuration in this section of the iDNA user interface includes:

1. uploading an appropriate IBM Notes User ID
2. setting up the relevant Domino servers

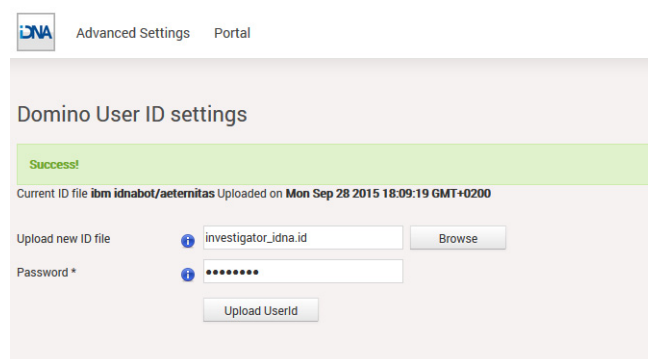
1. IBM Notes User ID File Upload

Enter **https://<FQDN or IP>/idna/cfgc** to get to the iDNA configuration portal. When you click on the *Setup User ID* button beside the User ID section, a dialog opens to upload your ID file.

► Please ensure that the IBM Notes User ID meets the following requirements:

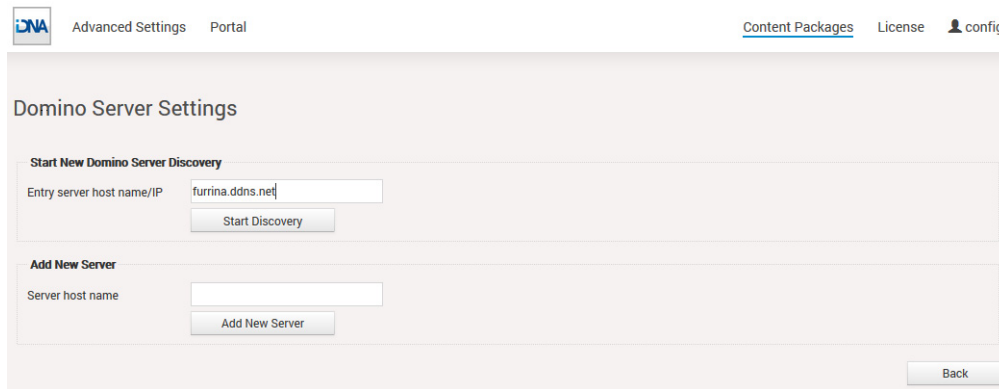
- **access to all servers** that are relevant for the infrastructure analysis
- **read access to all log files**
- **read access to all catalog.nsf**
- **read access to all Domino directories in scope**
- **full remote console admin rights on all servers**

To upload the new User ID file, please open the file selection dialog by clicking the *Browse* button. Select the desired IBM Notes User ID, enter the appropriate password and click on *Upload*. “Success” means that you uploaded a properly configured IBM Notes User ID:



2. Domino Server Settings

Click the *Discovery* button in the in the iDNA configuration portal (<https://<FQDN or IP>/idna/cfgc>) to open the Domino Server Settings:



There are two ways to set up your Domino servers for iDNA:

- a *Start new Domino Server Discovery* – this option provides a comfortable way to add several servers to the iDNA analysis
- b *Add new server* – this section offers the possibility to add (further) servers manually. Just enter the FQDN of the servers iDNA is supposed to analyze

Start new Domino Server Discovery

The Domino server discovery starts at the server that you enter in the *Entry server host name/IP* field. This server's Domino Directory will be scanned for further server documents.

After entering the FQDN or IP of your desired entry server, you can start your Domino server discovery (by clicking on the *Start Discovery* button) which means that the iDNA Notes client tries to access the server and reads the other server names from the server documents in its Domino directory. You will get a notification in case the iDNA Notes ID doesn't have sufficient rights to access the defined entry server. Depending on your infrastructure and settings, the duration of the discovery can vary. When it is done, the results of the discovery are displayed:

Advanced Settings Portal Content Packages License config

Domino Server Settings

Discovery finished! 7 domino servers found [Copy](#)

Server List Search: [Excel ...](#) [Clipboard ...](#)

ID	Domino Name	Tags	Access	Nab	Log	Catalog	Stats	Domlog	Console
1	luna/aeternitas	Click to edit	2051						X
2	Furrina/aeternitas	Click to edit	0	0	0	0	0	16643	0 X
3	fortuna/aeternitas	Click to edit	2051						X
4	aurora/aeternitas	Click to edit	2051						X
5	flora/aeternitas	Click to edit	2051						X
6	Hawthorne/aeternitas	Click to edit	2051						X
7	testserverformiraldo/withahugelongname/insanemanyorganizationalunits/aeternitas	Click to edit	2051						X

Show entries Showing 1 to 7 of 7 entries [Previous](#) [Next](#)

Certifiers required for license: /0=aeternitas [Check Server Access ...](#)

In this list, all servers which have been found² will appear together with some information about the access status of:

- the server itself
- the log file
- the Domino Directory
- the console
- the statistics
- the domlog.nsf

If there are any access issues, they should be solved before configuring the content packages. Clicking on the red X deletes the respective server from the list. You can make use of this when you want to delete decommissioned servers that are still listed in the address book.



Please note that there is a list of all certifiers displayed, which have to be included in the license file for a successful measurement.

If there are servers which could not be found in the Domino Directory of the Discovery Server you can add to them by using the **Add new Server** option.

² in the directory of the entry server of the discovery

Please ensure that all requirements for *LC* (Log configuration) and *CaC* (Catalog Configuration) are met by all servers. If there is an issue in one of those columns, hover over the entry and a pop up will display the issue found. Every time a found issue has been fixed on a server, please do a recheck **extended access** on that specific server. If the customer has scheduled Catalog and *Statlog* tasks via program document(s), it is OK for *CaC* (Catalog Config) to remain in warning state. It is always OK for *MRC* (Mail Routing Config) to remain in warning state, since mail routing information is not processed in *IDD*.

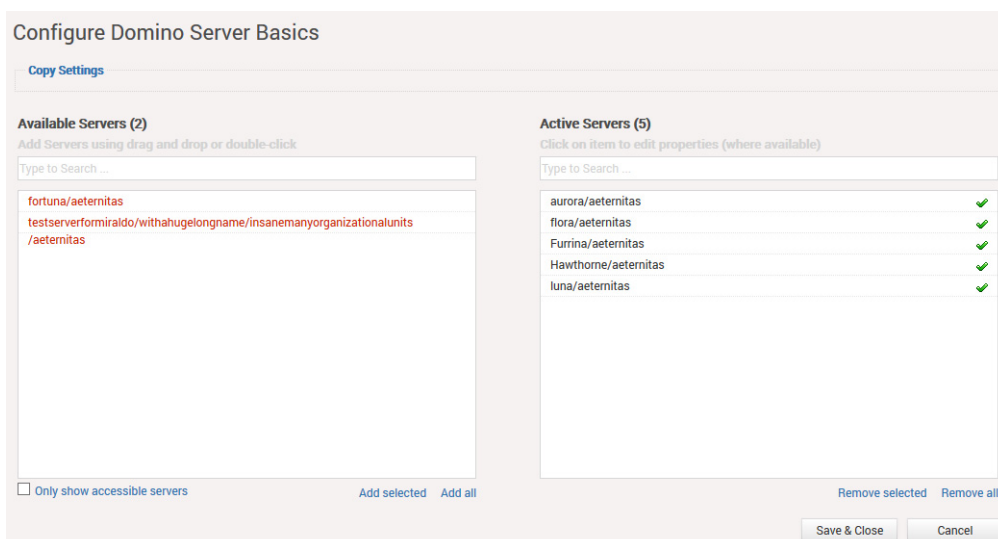
Content Packages – iDNA Foundation

iDNA Foundation contains the following Content Packages:

- **Domino Server Basics**
- **Database Catalog**
- **Session Activity**
- **Domino Web Log**
- **Directory/NAB Content**

With the exception of Directory/NAB and Domino Web Log content, all of them are configured as described in the following section. Directory/NAB and Domino Web Log configurations are explained in separate sections.

Configure Domino Server Basics/Database Catalog/Session Activity/Domino Web Log



Configure Domino Server Basics

Copy Settings

Available Servers (2)
Add Servers using drag and drop or double-click
Type to Search ...

- fortuna/aeternitas
- testserverformiraldo/withahugelongname/insanemanyorganizationalunits/aeternitas

☐ Only show accessible servers Add selected Add all

Active Servers (5)
Click on item to edit properties (where available)
Type to Search ...

- aurora/aeternitas ✓
- flora/aeternitas ✓
- Furrina/aeternitas ✓
- Hawthorne/aeternitas ✓
- luna/aeternitas ✓

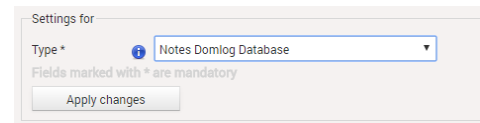
Remove selected Remove all

Save & Close Cancel

To configure the Content Packages Domino Server Basics, Database Catalog, Session Activity and Domino Web Log, you only have to choose your desired servers from the list of *Available Servers*. To do so, please use drag and drop or double click on the respective servers. When you are facing a longer server list, you will also find a filter option in this configuration form as well as buttons to *Add selected* or to *Add all* servers.



Note: In the Domino Web Log configuration another section "Settings for..." will be visible. Please do not change these settings (defaults to "Notes Domlog Database").



From the moment you click on the *Save & Close* button, iDNA will start to measure your desired servers according to the Content Package you just configured.

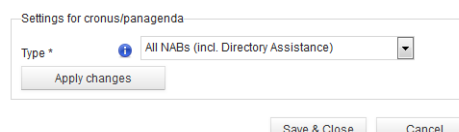
Configure Directory/NAB Content

This content package collects all Person, Group and Mail-In documents from selected Domino directories.

It differs from other content packages, as infrastructure wide information is being gathered, which is not specific to the server from which it is collected. Therefore, only one server per Notes Domain is selected in this content package. Typical candidates are admin servers, hubs or dedicated directory servers.

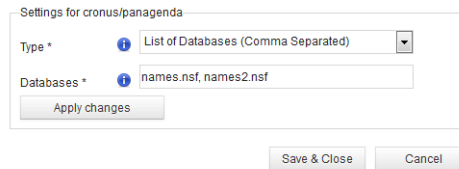
There are two options when selecting which directories are collected:

1. All address books listed in Directory Assistance (DA) of this server
This option is the default, but may lead to undesired results if address books are part of DA which hold external persons. Only address books should be included that contain the company's own Notes users.



2. Comma separated list of databases

Sometimes the better option is selecting address books manually via this option. Simply gathering "names.nsf" databases from desired Notes Domains will often provide everything that is needed.



Settings for cronus/panagenda

Type * ⓘ List of Databases (Comma Separated) ▼

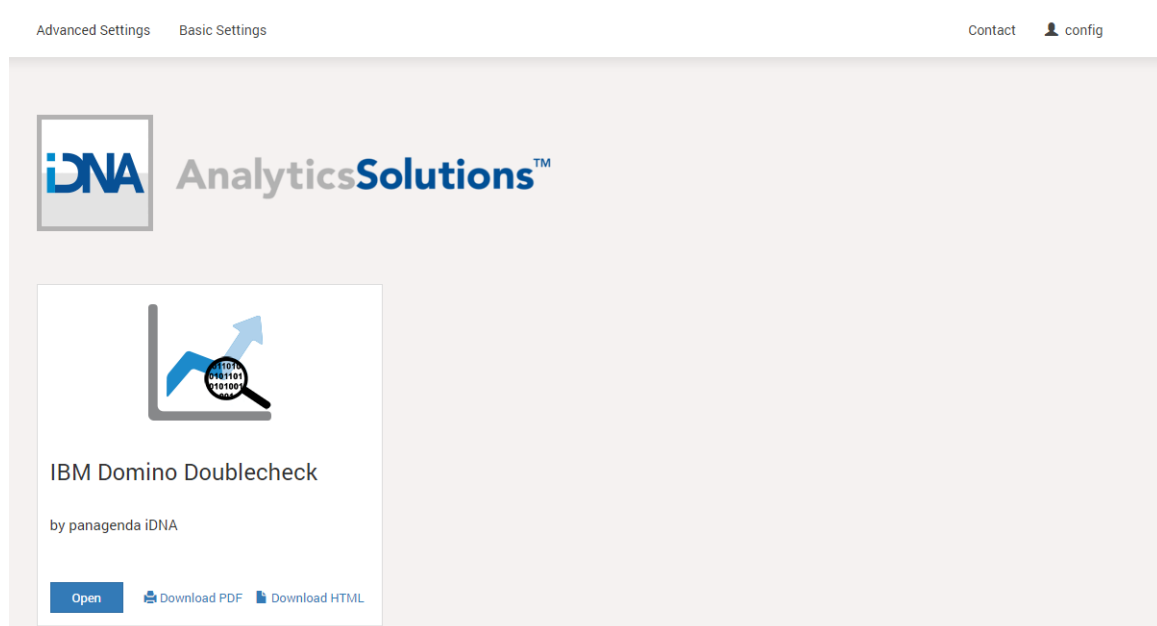
Databases * ⓘ names.nsf, names2.nsf

Apply changes

Save & Close Cancel

Report Portal – iDNA Foundation

After the initial configuration, entering **https://<FQDN or IP>** brings you to the report portal:



Click on the Open button to open the IBM Domino Doublecheck report in a new tab/window. With Download PDF and Download HTML you can download the report in PDF or HTML format respectively.

ADDITIONAL INFORMATION

iDNA URLs

- **<https://<FQDN or IP>/idna>**
 - Home URL redirects to */idna/login*
- **<https://<FQDN or IP>/idna/cfgc>**
 - Config (Admin) Client
- **<https://<FQDN or IP>/idna/sys>**
 - System overview
 - Set of system URLs to check
- **<https://<FQDN or IP>/idna/sys/support>**
 - Download a zipped log directory to send to support!

Download Log Files

1. Log in to iDNA with your Config User and go to **<https://<FQDN or IP>/pac/>**
2. Please click the button Download next to "Download Appliance Logs"
3. Save the file to your computer

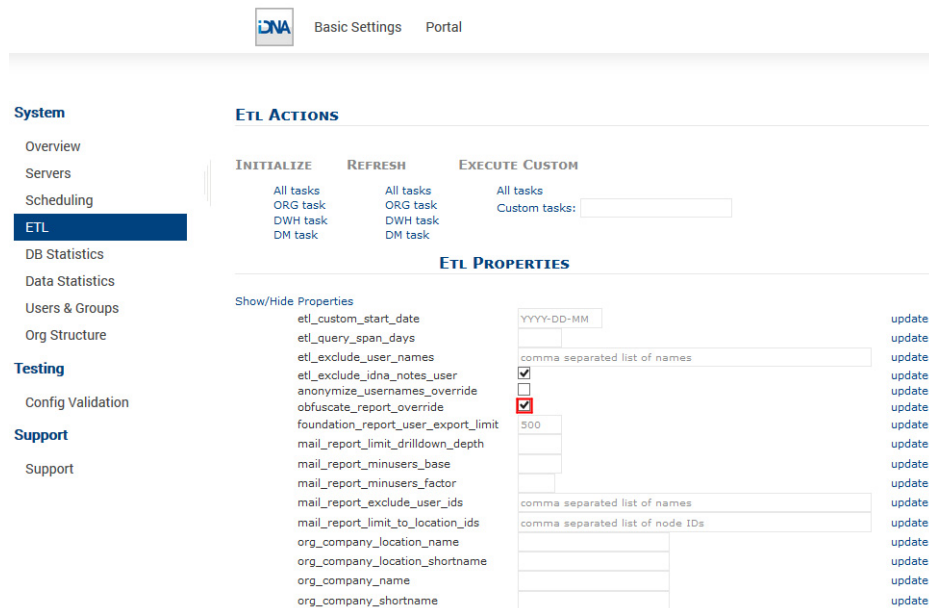
Please send this file with every support inquiry. These logs will greatly improve speed and quality of processing support tickets.

Obfuscate Report

Within iDNA, there is a way to generate an obfuscated report by configuration. This report will not contain any readable database names, database titles or user names. Therefore it can be sent out to consultants, for example, without having a data privacy issue.

To generate an obfuscated report:

1. Go to **<https://<FQDN or IP>/idna/>**
2. Login with the known credentials
3. Goto **Advanced Settings ETL**
4. Click **Show properties**
5. Check **obfuscate_report_override** and click **update** (see screenshot on next page):



The screenshot shows the iDNA ETL ACTIONS page. The left sidebar has a menu with 'System', 'Testing', and 'Support'. Under 'System', 'ETL' is selected. The main content area has three tabs: 'INITIALIZE', 'REFRESH', and 'EXECUTE CUSTOM'. The 'REFRESH' tab is active, showing a table of tasks: 'All tasks', 'ORG task', 'DWH task', and 'DM task'. The 'DM task' is highlighted. Below this is the 'ETL PROPERTIES' section, which has a 'Show/Hide Properties' button. The properties table lists various settings, including 'etl_custom_start_date', 'etl_query_span_days', 'etl_exclude_user_names', 'etl_exclude_idna_notes_user', 'anonymize_usernames_override', 'obfuscate_report_override' (checked), 'foundation_report_user_export_limit' (500), 'mail_report_limit_drilldown_depth', 'mail_report_minusers_base', 'mail_report_minusers_factor', 'mail_report_exclude_user_ids', 'mail_report_limit_to_location_ids', 'org_company_location_name', 'org_company_location_shortcode', 'org_company_name', and 'org_company_shortcode'. Each property has an 'update' button next to it.

6. Refresh DM by clicking **DM task** in the refresh column:



The screenshot shows the iDNA ETL ACTIONS page. The left sidebar has a menu with 'System', 'Testing', and 'Support'. Under 'System', 'ETL' is selected. The main content area has three tabs: 'INITIALIZE', 'REFRESH', and 'EXECUTE CUSTOM'. The 'REFRESH' tab is active, showing a table of tasks: 'All tasks', 'ORG task', 'DWH task', and 'DM task'. The 'DM task' is highlighted. Below this is the 'ETL PROPERTIES' section, which has a 'Show/Hide Properties' button. The properties table lists various settings, including 'etl_custom_start_date', 'etl_query_span_days', 'etl_exclude_user_names', 'etl_exclude_idna_notes_user', 'anonymize_usernames_override', 'obfuscate_report_override' (checked), 'foundation_report_user_export_limit' (500), 'mail_report_limit_drilldown_depth', 'mail_report_minusers_base', 'mail_report_minusers_factor', 'mail_report_exclude_user_ids', 'mail_report_limit_to_location_ids', 'org_company_location_name', 'org_company_location_shortcode', 'org_company_name', and 'org_company_shortcode'. Each property has an 'update' button next to it.

Extending Disk Space

Depending on your environment you may need to enlarge the virtual disk on which the data is stored. See the following iDNA Applications kbase entry:

<https://www.panagenda.com/kbase/x/gAK0AQ>

Upgrade iDNA

See the following article in the iDNA Applications kbase:

<https://www.panagenda.com/kbase/x/gAK0AQ>

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