

**How to Bring**  
**HCL Nomad Web and Domino**  
**Together Without SafeLinx**

December 13th 2022



# Speakers



**Xaver Benz**

[@panagenda](#)

Head of Marketing and Training

**panagenda**



**Marc Thomas**

[@IAM\\_Mthomas](#)

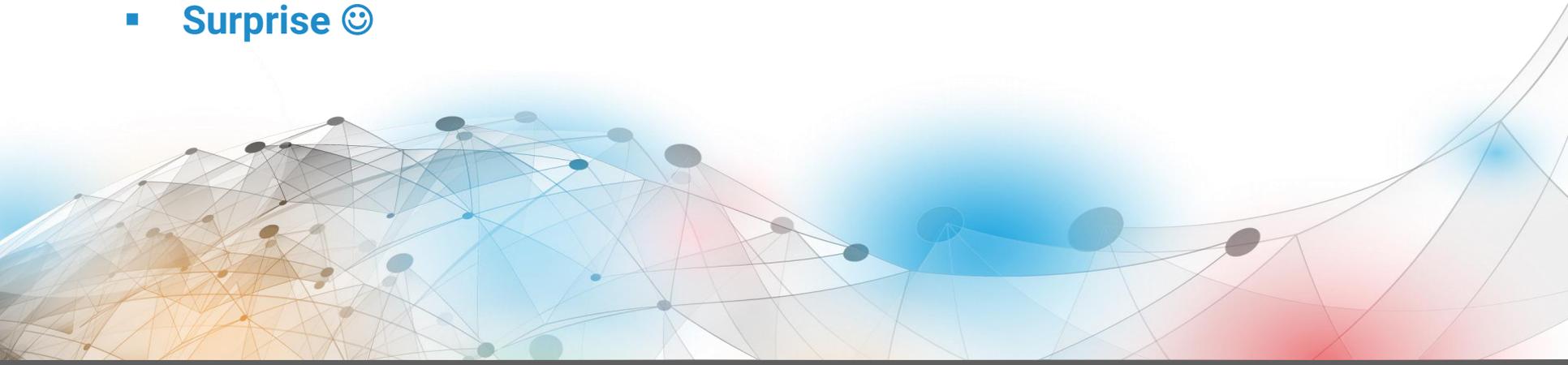
Senior Consultant

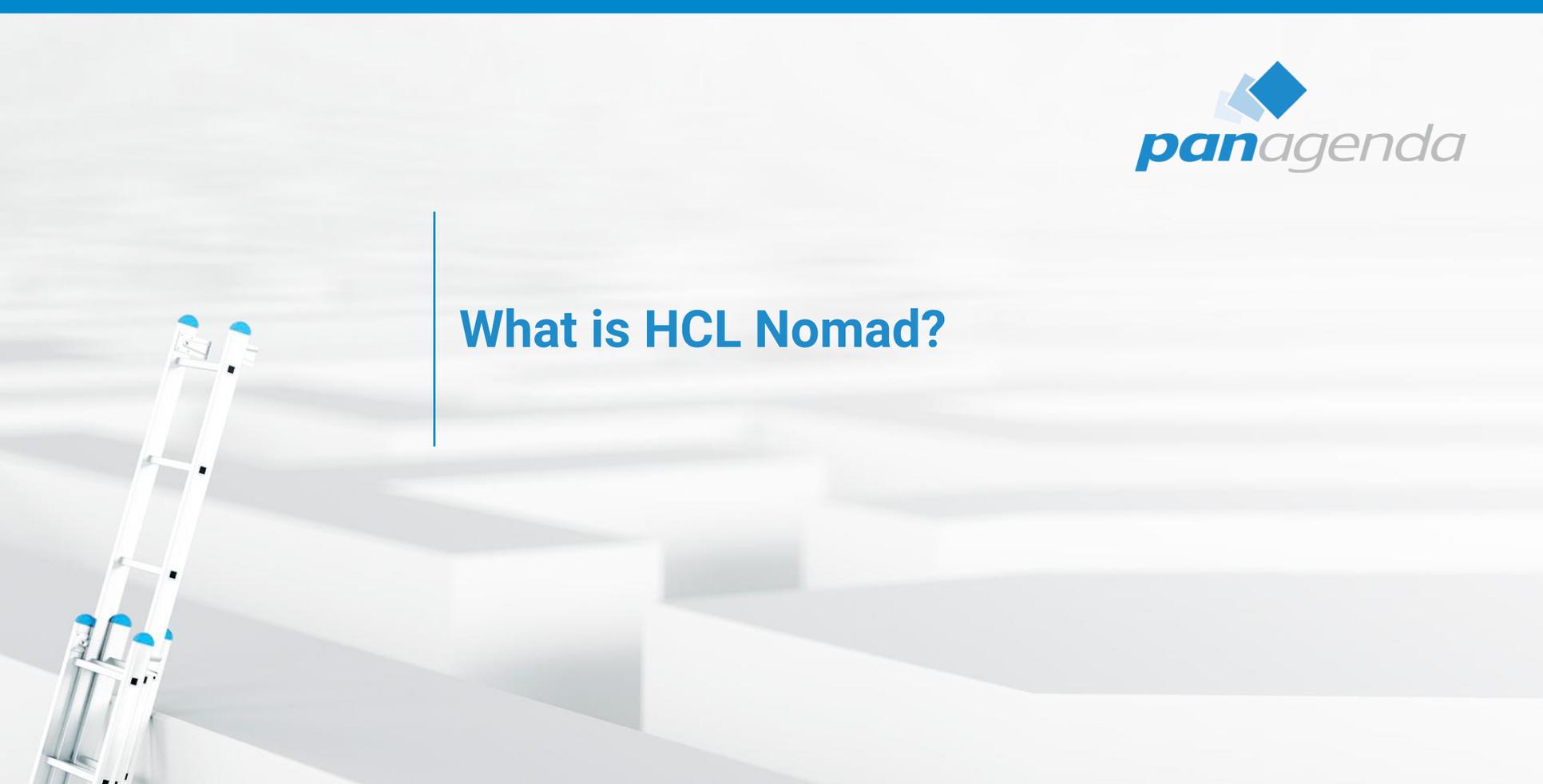
**panagenda**



# Agenda

- **What is HCL Nomad?**
- **Current Versions, Features and Requirements**
- **HCL Nomad Server for Domino**
- **Surprise 😊**



A background image showing a white 3D maze of rectangular blocks. A white ladder with blue accents is leaning against the left side of the maze, suggesting a path through the maze.

## What is HCL Nomad?

# What is HCL Nomad?



**Nomad (mobile)**



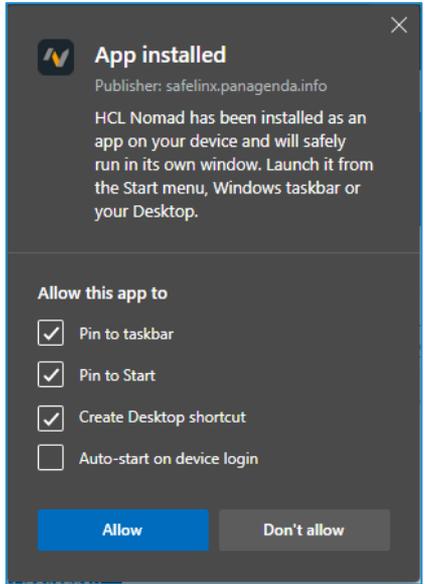
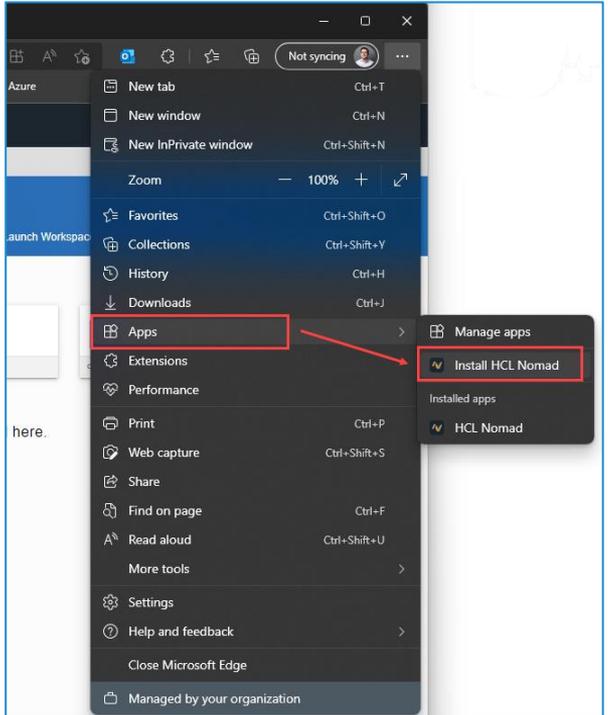
**Nomad Web**

*Official name*

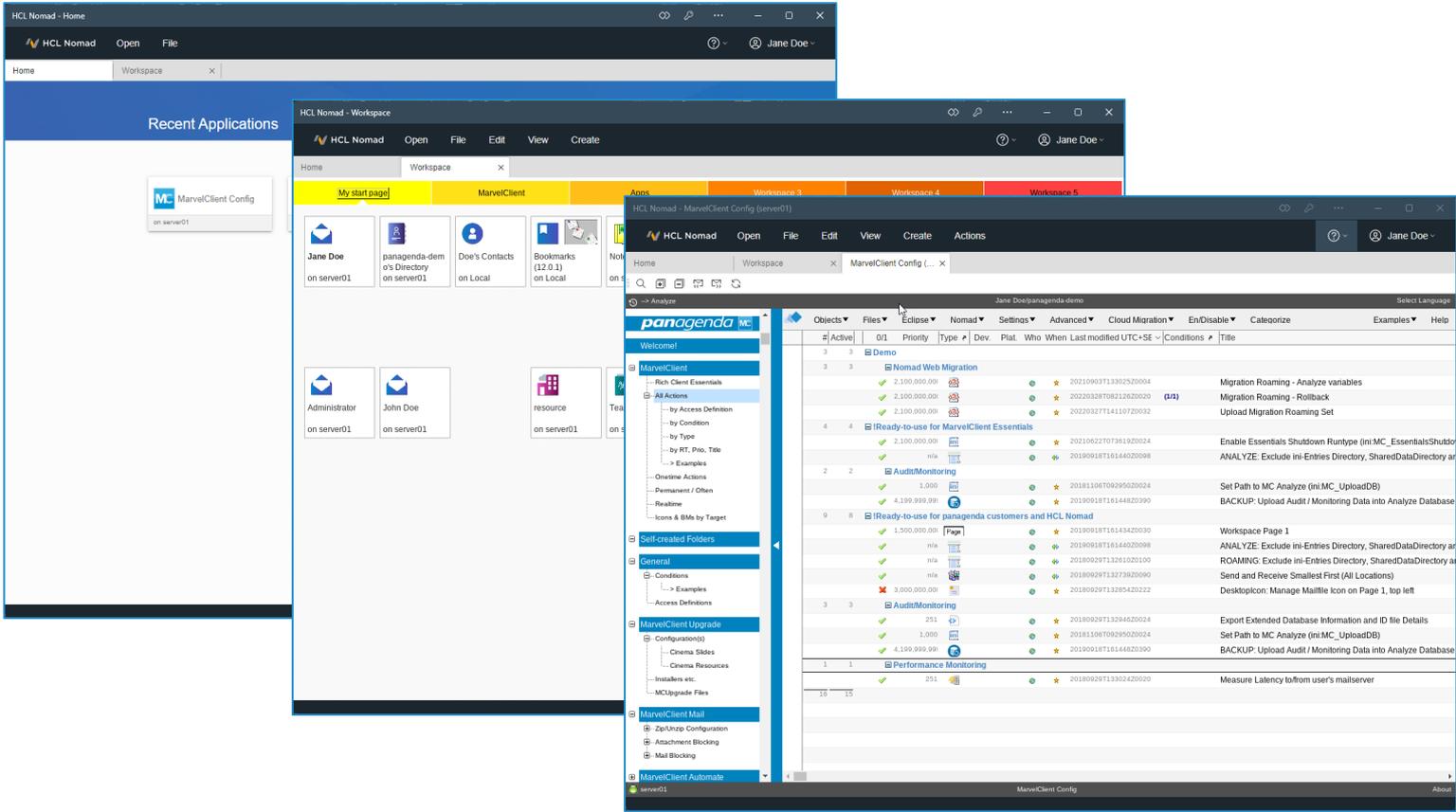
*"HCL Nomad for web browser"*



# What is HCL Nomad?



# What is HCL Nomad?



The screenshot displays the HCL Nomad user interface. It features a top navigation bar with 'HCL Nomad', 'Open', and 'File' menus. Below this is a 'Recent Applications' section showing 'MarvelClient Config' on 'server01'. The main workspace area contains several application tiles for 'Jane Doe', 'panagenda-demo's Directory on server01', 'Doe's Contacts on Local', 'Bookmarks (12.0.1) on Local', 'Administrator on server01', 'John Doe on server01', and 'RESOURCE on server01'. A large configuration window is open, showing a table of settings for 'MarvelClient Config (server01)'. The table includes columns for 'Active', 'Priority', 'Type', 'Dev.', 'Plat.', 'Who', 'When', 'Last modified', 'UTC+SE', 'Conditions', and 'Title'. The configuration items are organized into sections like 'MarvelClient', 'General', 'MarvelClient Upgrade', 'MarvelClient Mail', and 'MarvelClient Automate'.

#	Active	Priority	Type	Dev.	Plat.	Who	When	Last modified	UTC+SE	Conditions	Title
3	3										<b>Demo</b>
3	3										<b>Nomad Web Migration</b>
											2,100,000.000
											20210903T13302520004
											Migration Roaming - Analyze variables
											2,100,000.000
											20220328T08212620020
											Migration Roaming - Rollback
											2,100,000.000
											20220327T14110720032
											Upload Migration Roaming Set
4	4										<b>Ready-to-use for MarvelClient Essentials</b>
											2,100,000.000
											20210622T07381920008
											Enable Essentials Shutdown Runtime (ini:MC_EssentialsShutdown)
											20180918T16144020098
											ANALYZE: Exclude Ini-Entries Directory, SharedDataDirectory at
2	2										<b>Audit/Monitoring</b>
											1,000
											20181106T09295020024
											Set Path to MC Analyze (ini:MC_UploadDB)
											4,199,999.999
											20180918T16144820390
											BACKUP: Upload Audit / Monitoring Data into Analyze Database
9	8										<b>Ready-to-use for panagenda customers and HCL Nomad</b>
											1,500,000.000
											20180918T16143420030
											Workspace Page 1
											20180918T16144020098
											ANALYZE: Exclude Ini-Entries Directory, SharedDataDirectory at
											20180929T13261020100
											ROAMING: Exclude Ini-Entries Directory, SharedDataDirectory at
											20180929T13273920090
											Send and Receive Smallest First (All Locations)
											3,000,000.000
											20180929T13285420222
											Desktopicon: Manage Mailfile Icon on Page 1, top left
3	3										<b>Audit/Monitoring</b>
											251
											20180929T13284620024
											Export Extended Database Information and ID file Details
											1,000
											20181106T09295020024
											Set Path to MC Analyze (ini:MC_UploadDB)
											4,199,999.999
											20180918T16144820395
											BACKUP: Upload Audit / Monitoring Data into Analyze Database
1	1										<b>Performance Monitoring</b>
											251
											20180929T13302420020
											Measure Latency to/from user's mailserver

A background image showing a white 3D maze of rectangular blocks. A white step ladder with blue caps on the rungs is leaning against the left side of the maze, symbolizing a path through complexity.

## Current Versions, Features and Requirements

## Current Versions

- HCL Nomad server for Domino → 1.0.6 (for Domino 12.0.1)
- HCL Nomad server for Domino → 1.0.6 (for Domino 12.0.2)
  
- HCL Nomad for web browsers → 1.0.6
- HCL SafeLinx → 1.3.0.1

# HCL Nomad Web 1.0.6 – New Features

## What's new in HCL Nomad for web browsers

### Release 1.0.6

- **Domino Restyle updates:**

- Navigators in the application are restyled.
- Applications can choose to change their launch property to a standardized frameset. For more information, see [Launch property features](#).

- **panagenda MarvelClient updates in the Analyze Database:**

Additional information is now returned from the browser and reported in the Analyze Database:

- browser name
  - browser version
  - os name
  - os version
  - user agent string
- **Nomad server on Domino on Domino 12.0.2:**  
Nomad server on Domino now runs on Domino 12.0.2 in addition to 12.0.1.
  - Bug fixes.



# Requirements (with SafeLinx)



HCL SafeLinx



SSL



HCL Nomad



HCL Domino



# Requirements (without SafeLinx)



HCL SafeLinx



SSL



HCL Nomad  
Server for Domino



HCL Domino



# Your new best friend → the browser!

## Only 64-bit desktop web browsers are supported

- Firefox 83 or higher → no native PWA support since version 85
- Google Chrome 80 or higher → (if  $\geq$  v108, you need Nomad Web 1.0.6)
- Microsoft Edge 85 or higher



# Your new best friend(s) → the “chrome/edge” browser(s)

## Change in Chrome and Edge >= Version 108.x

<https://developer.chrome.com/blog/new-in-chrome-108/>

Here's what you need to know:

- It is easier to create adaptive UIs with new [viewport size units](#).
- Color vector fonts now include support for [variable fonts](#).
- The methods in the interface `FileSystemSyncAccessHandle`, part of the File System Access API, are now [synchronous](#).
- And there's plenty [more](#)



# HCL Nomad Web 1.0.6 – Fixes

## Fixes

### 1.0.6

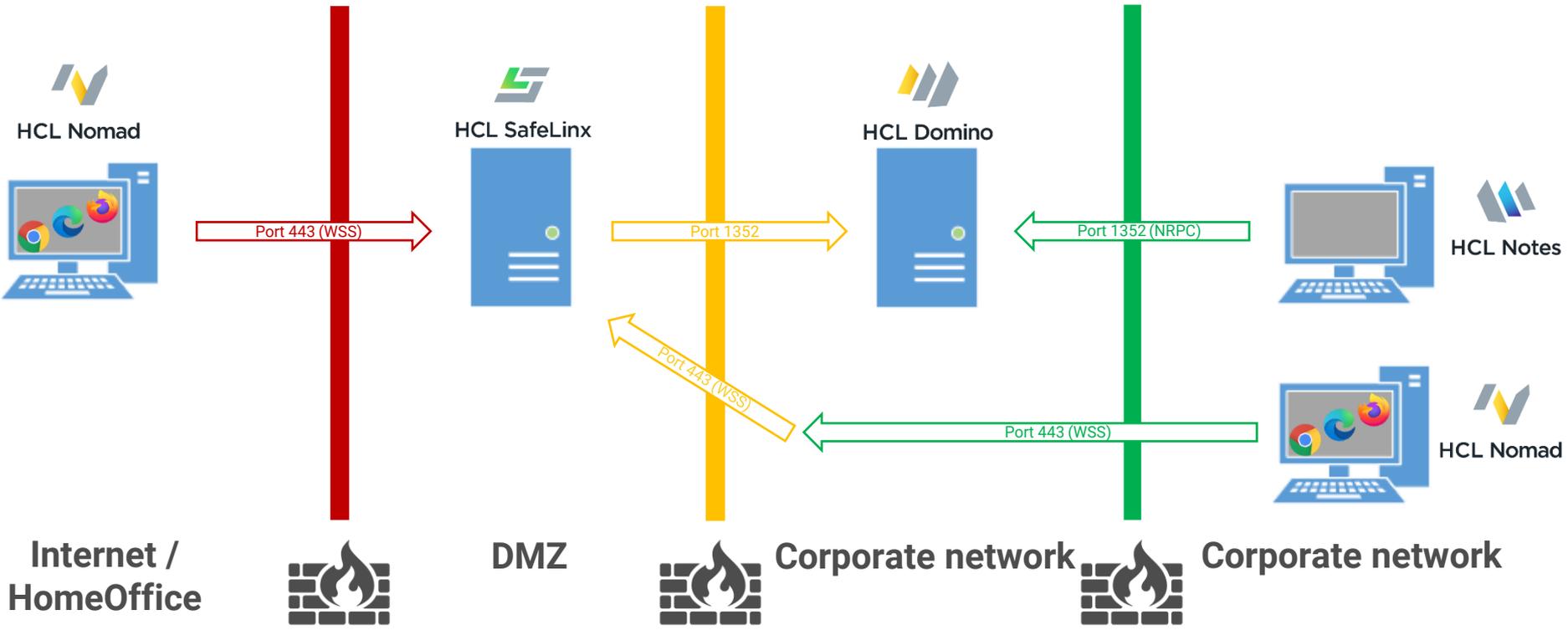
Issue Identifiers	Details
NWASM-2465	Russian: Customize This View: Fix for the dialog columns being too narrow.
NWASM-2466	Russian: Customize This View: Fix the truncation of "Сортировать".
NWASM-2566, NWASM-4224, NWASM-4426	Update the Time Picker and Date Picker to fix multiple issues and improve usability.
NWASM-4191	Add support for "Other..." in the Open Application dialog to access Domino servers that are not pre-populated from the Workspace or other sources.
NWASM-4192	Fix for field borders in table structures not being displayed correctly.
NWASM-4355	When running in Japanese, display the \ character as the Yen character.
NWASM-4379	Add files need to support an Include of Isconst.Iss.
NWASM-4382	Update the notes:// readme with more information needed to get Firefox working for notes:// links.
NWASM-4505	Fix for crashes when run on Google Chrome version 108 or Microsoft Edge version 108.



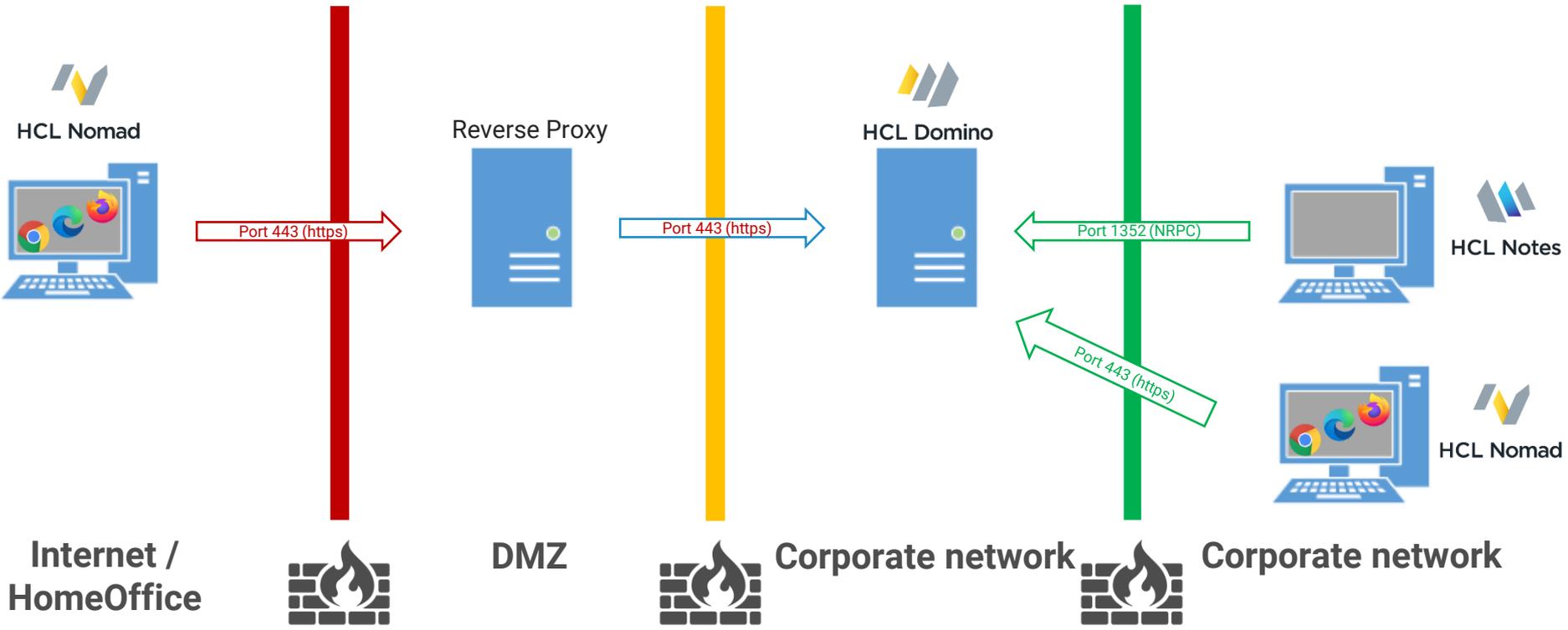
A background image of a football player in a white and blue uniform, wearing a white helmet, reaching up to catch a football. The scene is set in a stadium with bright lights and a cloudy sky. A thin blue vertical line extends from the top of the page down to the football.

## HCL Nomad server for Domino

# HCL Nomad server for Domino



# HCL Nomad server for Domino



# HCL Nomad server for Domino

## Quick Checklist / prerequisites before installation

1. Download "HCL Nomad server for Domino"
2. Domino 12.0.1 or 12.0.2 (Windows or Linux)
3. ID Vault needs to be enabled (ID's must be available in the Vault)
4. TLS certificate for Nomad server for Domino



# HCL Nomad server for Domino

## TLS Certificate

Do you need a trusted / valid TLS certificate for Nomad Web?

→ **YES!**

Can you use the “new” Certificate Manager for configuring TLS certificates?

→ **YES!**



# HCL Nomad server for Domino

[https://help.hcltechsw.com/nomad/1.0\\_admin/nomadserver\\_domino.html](https://help.hcltechsw.com/nomad/1.0_admin/nomadserver_domino.html)

 nomad-server-1.0.6-for-domino-1202-linux.tgz	06.12.2022 13:29	TGZ-Datei	176.475 KB
 nomad-server-1.0.6-for-domino-1201-linux.tgz	06.12.2022 13:29	TGZ-Datei	176.470 KB
 nomad-server-1.0.6-for-domino-1202-win64.zip	06.12.2022 13:28	ZIP-komprimierte...	161.963 KB
 nomad-server-1.0.6-for-domino-1201-win64.zip	06.12.2022 13:28	ZIP-komprimierte...	161.963 KB

## Installation

1. Pick one or more 1201 Fix Pack 1 or higher Domino server to install on.
2. Download and extract the corresponding zip/tar file for your platform into the Domino program directory.



**Note:**

- The default directory for Linux is /opt/hcl/domino/notes/latest/linux/.
- The default directory for Windows is C:\Program Files\HCL\Domino.



# HCL Nomad server for Domino

## Installation (copy + unzip)

Name	Größe	Gepackte Größe	Geändert am	Zugriffsrechte	Besitzer	Gruppe	Link	Ha
license	188 568	188 928						
nomad-files	141 397 664	141 461 504	2022-09-21 20:06	drwxr-xr-x	0	jenkins		
nomad	43 278 104	43 278 336	2022-09-19 10:29	-rwxr-xr-x				
nwsp-linux	69 482 897	69 483 008	2022-09-21 20:06	-rwxr-xr-x	0	jenkins		

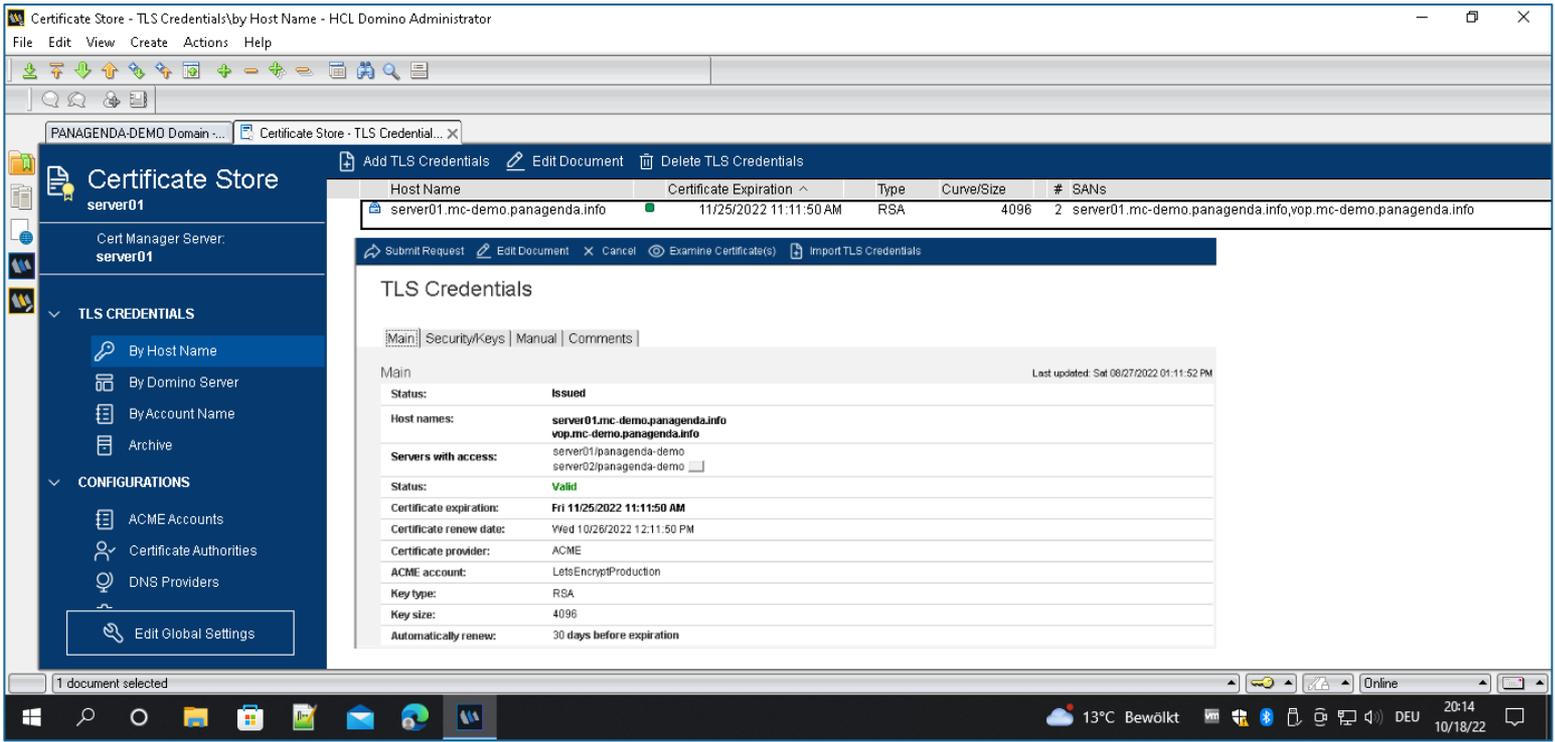


```
-rwxr-xr-x 1 root root 43278104 Sep 19 10:29 nomad
drwxr-xr-x 7 root notes 4096 Sep 21 20:06 nomad-files
-rwxr-xr-x 1 root root 109384 Nov 22 2021 notesei.dcx
-rwxr-xr-x 1 root root 3430 Nov 22 2021 notes.png
-rwxr-xr-x 1 root root 14590 Nov 22 2021 notes_ps.awk
-rwxr-xr-x 1 root root 19664 Nov 22 2021 nsd2xml
-rwxr-xr-x 1 root root 293242 Mar 30 2022 nsd.sh
-rwxr-xr-x 1 root notes 69482897 Sep 21 20:06 nwsp-linux
```

default directory for Linux is /opt/hcl/domino/notes/latest/linux/  
default directory for Windows is C:\Program Files\HCL\Domino

# HCL Nomad server for Domino

## Check the TLS certificate



The screenshot shows the HCL Domino Administrator interface. The left sidebar contains a navigation tree with 'Certificate Store' expanded to show 'server01'. Under 'server01', there are sections for 'Cert Manager Server: server01', 'TLS CREDENTIALS', and 'CONFIGURATIONS'. The 'TLS CREDENTIALS' section is active, showing a table of credentials.

Host Name	Certificate Expiration	Type	Curve/Size	# SANs
server01.mc-demo.panagenda.info	11/25/2022 11:11:50 AM	RSA	4096	2 server01.mc-demo.panagenda.info,vop.mc-demo.panagenda.info

Below the table, there are buttons for 'Submit Request', 'Edit Document', 'Cancel', 'Examine Certificate(s)', and 'Import TLS Credentials'. The 'Examine Certificate(s)' button is selected, displaying the 'TLS Credentials' details for the selected entry.

**TLS Credentials**

Main: Security/Keys | Manual | Comments

Main  
Status: Issued Last updated: Sat 08/27/2022 01:11:52 PM

Host names: server01.mc-demo.panagenda.info  
vop.mc-demo.panagenda.info

Servers with access: server01|panagenda-demo  
server02|panagenda-demo

Status: Valid

Certificate expiration: Fri 11/25/2022 11:11:50 AM

Certificate renew date: Wed 10/26/2022 12:11:50 PM

Certificate provider: ACME

ACME account: LetsEncryptProduction

Key type: RSA

Key size: 4096

Automatically renew: 30 days before expiration

# HCL Nomad server for Domino

## Notes.ini

If you use the (new) CertMgr with Domino you need to add a notes.ini parameter. The value must match with one of your configured TLS certificates in the CertMgr database

```
NOMAD_WEB_HOST=domino.acme.com
```

# HCL Nomad server for Domino

## Start HCL Nomad server task

Console commad: [load nomad](#)

```
load nomad
> [040592:000002-00007F6B674B97C0] 10/18/2022 05:31:24 PM Nomad: Build 0.15.5-4+ND12000101
[040592:000002-00007F6B674B97C0] 10/18/2022 05:31:26 PM Nomad: Server initializing
[040592:000002-00007F6B674B97C0] 10/18/2022 05:31:26 PM Nomad: Listening on 127.0.0.1:21813, CLIENT-IS-SERVER
[040592:000002-00007F6B674B97C0] 10/18/2022 05:31:26 PM Nomad: Note: Requested port was 0, Actual listen port is 21813
[040592:000002-00007F6B674B97C0] 10/18/2022 05:31:26 PM Nomad: Server initialized
```

Check Task, console commad: [sh tasks](#)

```
[016642:000010-00007F37AA40A700] Nomad Listen for connect requests on 0.0.0.0:9443
```

# HCL Nomad server for Domino

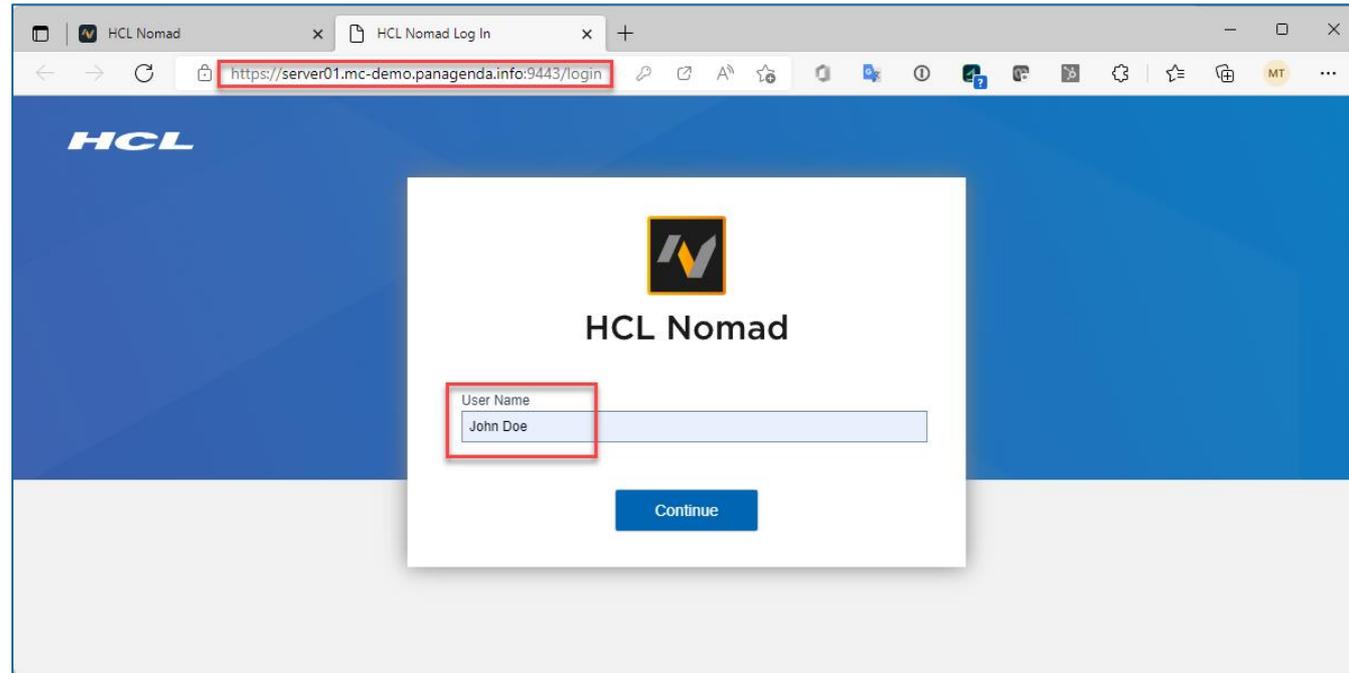
```
top - 18:00:33 up 207 days, 6:50, 2 users, load average: 0.04, 0.08, 0.03
Tasks: 137 total, 1 running, 136 sleeping, 0 stopped, 0 zombie
%Cpu(s): 0.6 us, 0.3 sy, 0.0 ni, 98.8 id, 0.0 wa, 0.1 hi, 0.1 si, 0.1 st
MiB Mem : 7768.1 total, 5638.2 free, 1166.9 used, 963.0 buff/cache
MiB Swap: 0.0 total, 0.0 free, 0.0 used. 5655.5 avail Mem
```

PID	USER	PR	NI	VIRT	RES	SHR	S	%CPU	%MEM	TIME+	COMMAND
18571	notes	20	0	1088.6m	69.3m	50.9m	S	0.3	0.9	4:35.73	clrepl
16584	notes	20	0	13.6m	3.1m	1.7m	S	0.0	0.0	0:00.01	rc_domino_scrip
16642	notes	20	0	2691.0m	260.1m	175.5m	S	0.0	3.3	4:16.16	server
16679	notes	20	0	623.3m	48.2m	28.5m	S	0.0	0.6	0:14.11	logasio
16695	notes	20	0	1155.6m	169.3m	147.9m	S	0.0	2.2	3:48.07	event
17383	notes	20	0	630.3m	75.4m	55.8m	S	0.0	1.0	0:13.37	dircat
17386	notes	20	0	630.6m	158.0m	138.3m	S	0.0	2.0	0:26.19	replica
17388	notes	20	0	827.1m	63.7m	42.7m	S	0.0	0.8	1:23.50	router
17390	notes	20	0	893.2m	100.1m	75.5m	S	0.0	1.3	0:29.57	update
17394	notes	20	0	629.6m	66.7m	45.8m	S	0.0	0.9	0:17.93	amgr
17398	notes	20	0	758.9m	255.6m	231.4m	S	0.0	3.3	1:51.35	adminp
17400	notes	20	0	629.3m	70.5m	51.2m	S	0.0	0.9	0:22.80	sched
17401	notes	20	0	622.8m	45.9m	27.1m	S	0.0	0.6	0:15.13	calconn
17402	notes	20	0	627.2m	67.5m	47.7m	S	0.0	0.9	0:23.16	rnrmgr
17410	notes	20	0	4421.0m	243.1m	109.7m	S	0.0	3.1	2:13.45	http
17411	notes	20	0	899.6m	233.1m	208.1m	S	0.0	3.0	0:57.05	ldap
17412	notes	20	0	693.4m	46.9m	29.0m	S	0.0	0.6	0:26.44	daosmgr
17448	notes	20	0	689.0m	87.4m	66.4m	S	0.0	1.1	0:28.97	certmgr
17567	notes	20	0	636.3m	124.8m	102.1m	S	0.0	1.6	0:26.92	amgr
18345	notes	20	0	627.1m	65.1m	46.1m	S	0.0	0.8	0:15.80	clbdbdir
40592	notes	20	0	1236.4m	71.4m	47.9m	S	0.0	0.9	0:03.35	nomad
40606	notes	20	0	710.7m	73.8m	32.9m	S	0.0	1.0	0:01.28	nwsp-linux
40614	notes	20	0	911.7m	85.0m	33.1m	S	0.0	1.1	0:01.85	nwsp-linux
40618	notes	20	0	839.5m	74.3m	33.0m	S	0.0	1.0	0:01.46	nwsp-linux
40621	notes	20	0	913.0m	84.2m	33.2m	S	0.0	1.1	0:01.70	nwsp-linux
40627	notes	20	0	781.0m	84.5m	33.0m	S	0.0	1.1	0:01.73	nwsp-linux
3893960	notes	20	0	918.7m	92.0m	33.3m	S	0.0	1.2	0:17.87	nwsp-linux
3893966	notes	20	0	920.3m	93.8m	33.6m	S	0.0	1.2	0:38.37	nwsp-linux

# HCL Nomad server for Domino

## Open HCL Nomad and first login

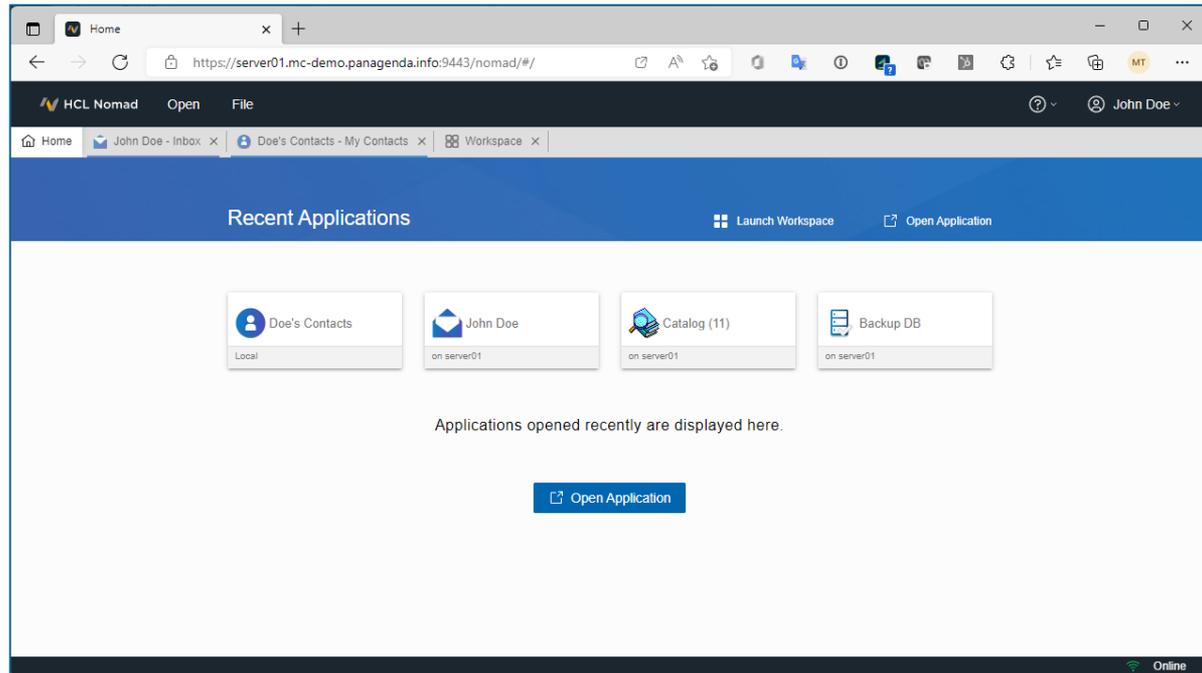
The Nomad server is listening on Port: 9443 in default



# HCL Nomad server for Domino

## Open HCL Nomad and first login

The Nomad server is listening on Port: 9443 in default



# HCL Nomad server for Domino

## Configuration of the Nomad server

To change default settings, you need to create a YAML file in the Domino Data named:

```
nomad-config.yml
```

Here you can configure:

- Ports
- IP Addresses
- Certificates
- Cookies
- Refresh rates



# HCL Nomad server for Domino

## Configuration of the Nomad server (example)

```
1 #default host and port setting
2 host: '0.0.0.0'
3 port: 9443
4
5 #default number of worker processes
6 cluster:
7   forks: 3
8
9 #Session cookie configuration
10 session:
11   secret: # default: randomly generated 32 character value
12   sameSite: lax
13   secure: true
14
15 #LTPA behind SafeLink
16 ltpa:
17   cookieName: LtpaToken2
18
19 #TLS
20 tlsOptions:
21   ciphers: ECDHE-RSA-AES256-GCM-SHA384:ECDSA-AES256-GCM-SHA384:ECDHE-RSA-AES128-GCM-SHA256:ECDSA-AES128-GCM-SHA256:
22   honorCipherOrder: true
23   secureOptions: SSL_OP_NO_TLSv1 | SSL_OP_NO_TLSv1_1
24
25 #Saml configuration
26 saml:
27   issuer:
28   claims:
29     # Any claim you place here and map to a SAML claim will be read for the user
30     # email: # default http://schemas.xmlsoap.org/ws/2005/05/identity/claims/emailaddress
31   idp: # see https://github.com/node-saml/passport-saml#config-parameter-details
32   entryPoint:
33   cert:
34
35 #Certificate configuration
36 ca: # file location or contents of the ca's certificate pem file
37 cert: # file location or contents of the certificate pem file
38 key: # file location or contents of the certificate key pem file
```



# Tip of the day: How to configure Port 443 ...

... on Linux based (Domino) servers

## **Challenge:**

Binding ports lower than 1024 is prohibited by default.  
(This is NodeJS standard security)

## **Solution:**

You need to give the NodeJS task the right to bind to ports lower than 1024

# Tip of the day: How to configure Port 443 ...

## ... on Linux based (Domino) servers (continued)

### Step 1:

Nomad must not run. Execute the following line to set the correct permissions

```
setcap 'cap_net_bind_service=+ep' /opt/hcl/domino/notes/latest/linux/nwsp-linux
```

### Step 2:

Create a “nomad-config.yml” file in the Data Directory with the following two entries

```
GNU nano 2.9.8 nomad-config.yml
host: '0.0.0.0'
port: 443
```

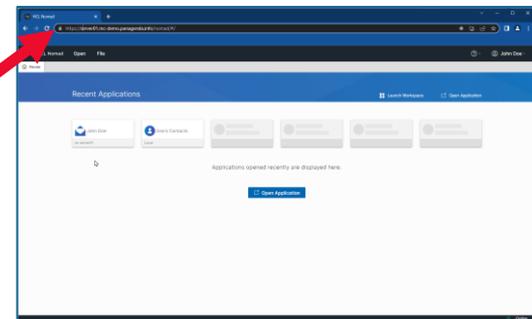
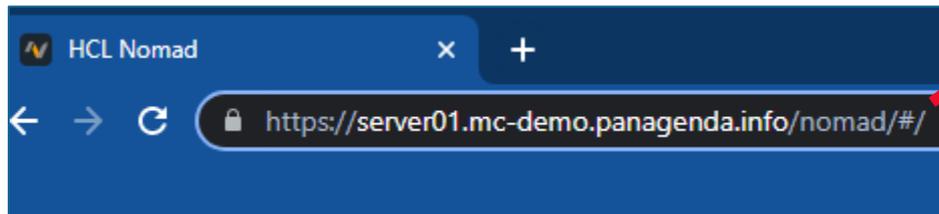
# Tip of the day: How to configure Port 443 ...

... on Linux based (Domino) servers (continued)

## Step 3:

Start nomad on Domino. (load nomad)

```
> load nomad
> [926809:000002-00007F24F95937C0] 12/06/2022 07:18:12 PM Nomad: Build 0.15.5-19+ND12000101
[926809:000002-00007F24F95937C0] 12/06/2022 07:18:15 PM Nomad: Server initializing
[926809:000002-00007F24F95937C0] 12/06/2022 07:18:15 PM Nomad: Listening on 127.0.0.1:2801, CLIENT-IS-SERVER
[926809:000002-00007F24F95937C0] 12/06/2022 07:18:15 PM Nomad: Note: Requested port was 0, Actual listen port is 2801
[926809:000002-00007F24F95937C0] 12/06/2022 07:18:15 PM Nomad: Server initialized
```



Surprise 😊





# Document Properties

by panagenda



**Version 12.0.12**



## New Features in v12.0.12

- **New optional columns for the Summary and Signed fields**  
(right-click the field table for a menu that lets you show or hide columns)
- **New copy menu options let you easily copy field names, values, or all info**
- **New menu option to open documents by NotelD or UNID → Pro only**
- **New ability to compare profile documents, and to see what fields changed when a document is modified → Pro only**





**Xaver Benz**

[@panagenda](#)

Head of Marketing and Training

**panagenda**



**Marc Thomas**

[@IAM\\_Mthomas](#)

Senior Consultant

**panagenda**





# Alles, was Sie über HCL Notes 64-Bit Clients wissen müssen

24. Jänner, 2022

**Jetzt registrieren >**



**Marc Thomas**  
HCL Ambassador & Senior Consultant  
panagenda

