# Domino 2022: What to Expect



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# The World is Still Powered by Domino

## **HCL Domino "North Star"**

Domino is the resilient platform for any business at the intersection of security, mail and applications ... built to run forever.

On any platform, anywhere.

# **HCL Domino Strategy**





Enable business users, IT and pro Developers to react faster to market conditions



Secure mail: Offer your end users a choice of mail client, with a proven secure back-end



Foster new skills by investing in new tooling, integration & deployment models



Drive down TCO with further integration (Verse, ST, SafeLinx) and easier-to-use admin capabilities

#### HCL Domino "Danube" v12.0.2 – OND 2022



# Better-Looking Apps

**Domino Restyle** - make your existing apps' UI look more modern

#### **Apply themes or update colors**

- in a single Domino application or many at once



# **Enhanced Mail Security**

ICAP support – enables serverbased Antivirus protection

**DKIM Inbound** - ensures emails are not altered in transit between the sending and recipient server

Sender Policy Framework coupled with DMARC, provides protection against email spoofing used in phishing and spam

Note: Subject to change without notice.



# Easy Meeting Scheduling

**Save time** – find when coworkers on Domino, Exchange, and M365 are free to meet

**Co-existence** – helps with the transition of customer mail solutions to Domino; also helps organizations through mergers and acquisitions

## HCL Domino "Danube" Supported Operating Systems

Windows	AIX	IBMi	RHEL	SLES
Windows Server 2022	(current is TL5) AIX 7.3 (new)	Power10) IBMi 7.4 (Power8, Power9, Power10)	RHEL 7.9 Linux equivalent RHEL 8.0+ Linux equivalent RHEL 9.0 Linux equivalent (new - in Beta)	SLES 12 S P4+ SLES 15.0 SP3+ (new)

Note: Subject to change without notice.

### **Better-Looking Apps**

- Domino ReStyler
- **Enchanted Domino Style Guide**

221

#### ReStyler - apply new design theme to existing Application

A new tool that will allow to apply a new design to an existing application my standardizing Forms/Views while keeping the application logic unmodified. Vote for this if you like the idea + leave a comment if you have further suggestions on functi...

Created 13 Dec 06:46pm Domino Designer

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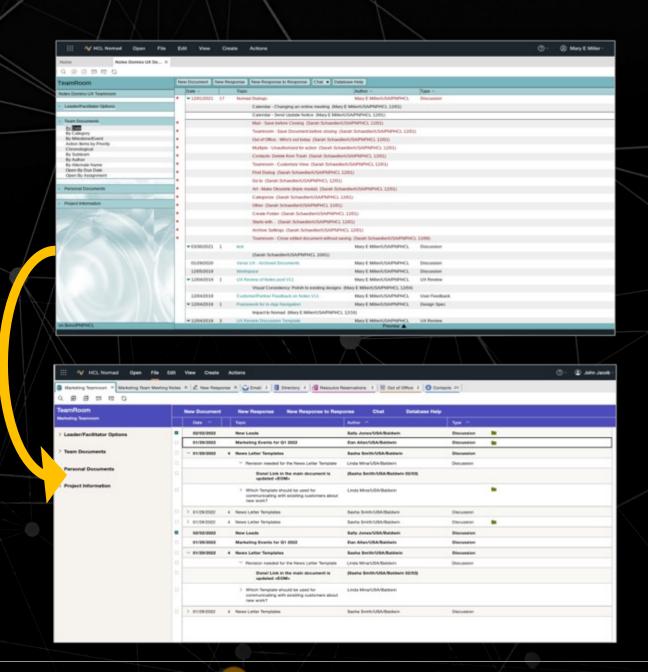


### **Better-Looking Apps**

What is project Restyle?

Project Restyle provides a way to easily update the visual styling of existing applications

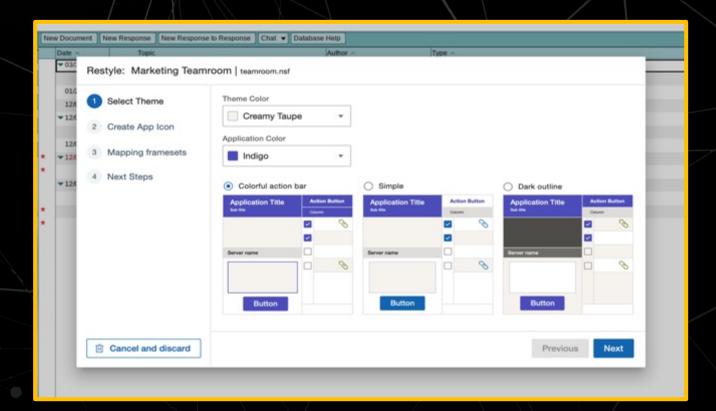
- It is low-risk because we are not touching code that would affect the logic of applications
- It is fast!
- It provides options (all of which look good)
- It is reliable. Users should have confidence in running Restyle on applications.



### **Better-Looking Apps**

Project Restyle will provide you with a set of design options (colors and themes) that will style the following areas of your application:

- Views
- Frames
- Pages
- Action bars
- Embedded outlines
- Framesets



## **Better-Looking Apps**

#### **Projected Timeline**

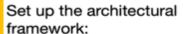
March Start

#### April

#### May Engage

#### June 1.0.4 Nomad Release





- Dev created code to restyle design elements.
- Design focused on Theming options

Development:

- JSON Theme files
- Style updates based on UX specs
- Start Wizard UI

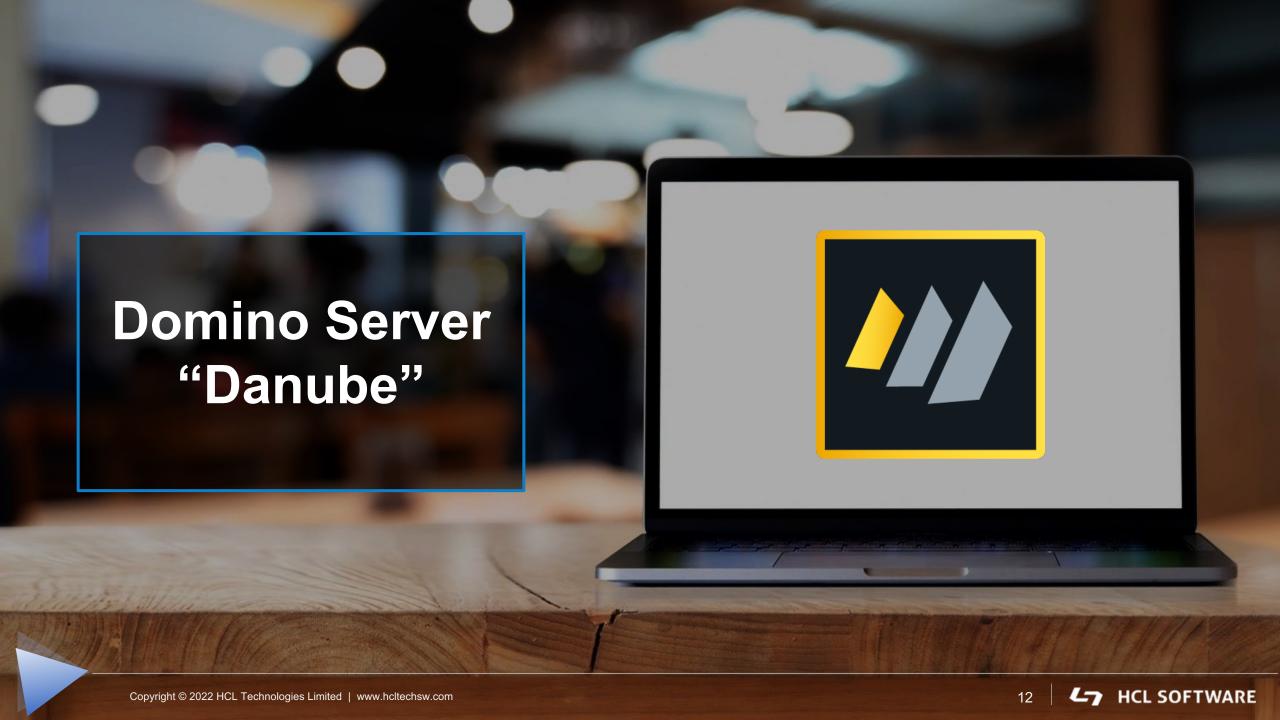
#### Design:

- Forms and Pages Spec
- Wizard UI Spec
- Design Guide

- 1. Keynote
- Design workshop (focused on collecting feedback on designs)
- 3. Beta Version/Early Release of the Domino Design Guide
- We have the hosted beta, and the code will be present in that build. A customer could play with Restyle there.
- 2. In the 1.0.4 release, the Restyle code will be present, and can be "enabled" (it won't show for a typical end user). For customers that deploy Nomad, they can kick the tires with Restyle as well.

Restyle available in Notes Client

**Danube** 



## **Enhanced Mail Security**

- ICAP support
- **DKIM Inbound**
- Sender Policy Framework



**DKIM** and **DMARC** support

Domino / Security

Assessment Q 51



#### **Email Virus Scanning Using ICAP**

#### What is ICAP (Internet Content Adaption Protocol)?

- A lightweight and extensible point-to-point protocol that effectively adapts content for user needs
- An ICAP server can also act as a server by accepting payloads and returning a specific response

#### How is ICAP used by Domino?

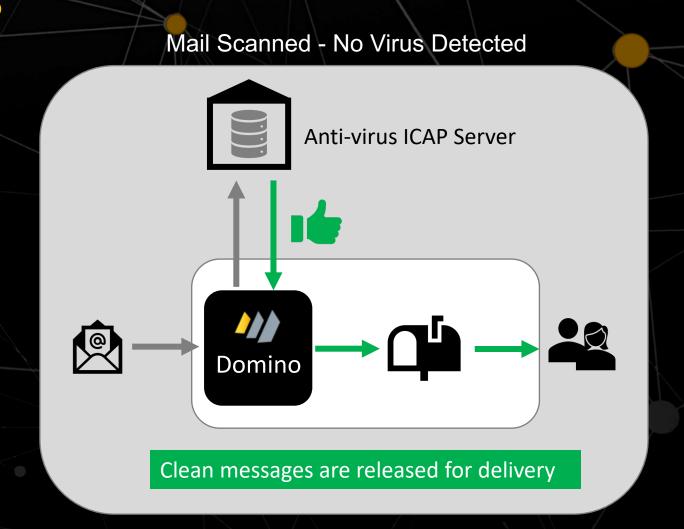
- Domino uses ICAP to send email messages to anti-virus servers to be scanned
- Domino sends a web response to an ICAP server with a streamed attachment
- The ICAP server responds with a completion code indicating if the payload was infected
- Headers contain additional information about the type of virus, timestamp, etc.



#### **Email Virus Scanning Using ICAP**

#### Your ICAP-enabled A/V solution

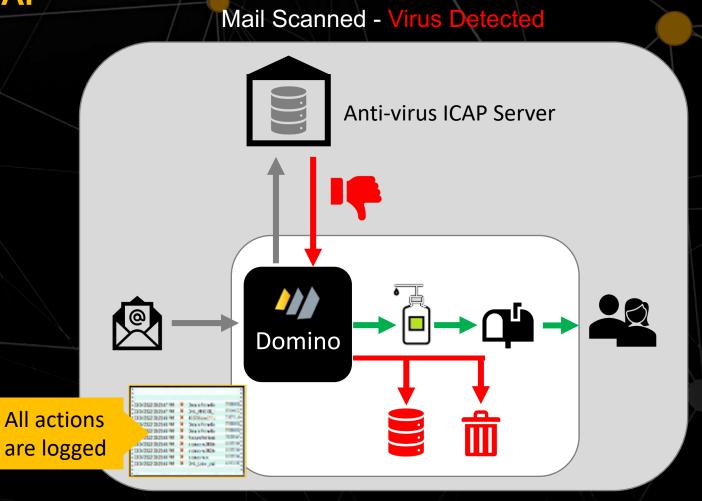
- You control the A/V rules
- You manage the virus signature refresh



#### **Email Virus Scanning Using ICAP**

#### **Configurable action**

- Sanitize and release
- Delete
- Quarantine



#### **DKIM Signature Verification Inbound**

- DKIM (Domain Keys Identified Mail) is an email signing standard which helps detect modification of certain message content while in transit between sending and receiving SMTP servers
- DKIM signing and signature verification are done by the SMTP endpoints. A DKIM signature is not typically visible to the end user. Domino 12.0.2 will introduce DKIM signature verification for inbound messages received over SMTP.
- DKIM helps to prevent spoofing by verifying the message coming from a domain are from one of its legitimate users or if the sender's information has been faked.
- Domino router configuration will offer the option to send messages which fail DKIM signature verification to the recipients Junk folder



#### Sender Policy Framework (SPF) Validation in SMTP

- SPF is a protocol designed to communicate which servers or IP addresses are authorized to send emails on behalf of a particular domain. SPF is technology designed to detect email sender spoofing.
- An internet domain publishes a DNS record containing its SPF policy. This policy asserts hosts which are authorized to send mail from addresses in the domain.
- A Domino SMTP server with SPF validation enabled will use DNS to look up the SPF policy for the domain of the sender of an inbound message. If a policy is found, Domino will determine if the connecting host is authorized to send mail for the sender's domain.
- SPF validation is intended to be used on Domino servers receiving mail directly from external internet servers



### Sender Policy Framework (SPF) Validation in SMTP

#### **SPF Configuration Options in Domino**

- Reject messages that fail SPF validation
- Deliver messages that fail to the recipients
   Junk folder
- Bypass SPF checks for trusted servers, such as internal relays



What's Next for Email Security?

DKIM and SPF are foundational to Domain-Based Message Authentication, Reporting and Conformance (DMARC)

...Stay tuned



# **DMARC**

## Domino Backup - VSS Support

- What is Windows VSS (Volume Shadow Copy Service)?
   A technology that can create backup copies or snapshots of computer files or volumes, even when they are in use.
- Domino will be a VSS writer Registers as a VSS writer with Windows
- Flow when a snapshot is initiated (takes less than 60 seconds):
  - Backup application starts VSS Snapshot
  - Windows sends event to all VSS writers registered to "freeze" their application
  - Domino switches all databases into backup mode
  - Windows takes VSS snapshot
  - Windows sends VSS "post thaw" event to application
  - Domino stops backup mode and writes new data to databases
- Works with all VSS backup aware backup applications without any additional scripting for backup!

Note: The Domino Backup VSS Support will be available in the Domino 12.0.2 Early Access Drop 1 (May 25<sup>th</sup>)! Daniel Nashed is presenting a session on Domino Backup later today



#### **Security Enhancements**

- Use OpenSSL 3.0.x for Notes/Domino Cryptographic code
  - FIPS 140-2 Compliant, Important for government organizations around the world. A technology proven to be secure.

(Included in Domino 12.0.2 Early Access 1, May 25th)

- Automatic administrative processing of User Recertification and Key Rollover in IDVault for Web only users (Included in Domino 12.0.2 Early Access 1, May 25<sup>th</sup>)
  - Local Notes Client is no longer needed to complete the renewal process.
  - Process is now entirely on server. Local Notes ID file is no longer needed.
- Support for ECDSA based client certificates for TLS Client certificate authentication
  - Smaller and faster than DSA.
- Improved Integration with SAML 2.0 IDPs like Keycloak/ADFS by using Redirect style signature binding. Provides better security and performance the Post style binding. (Included in Domino 12.0.2 Early Access 1, May 25<sup>th</sup>)



# Free/busy time look up to and from O365





Microsoft **Graph API** (REST)





MS. 0365



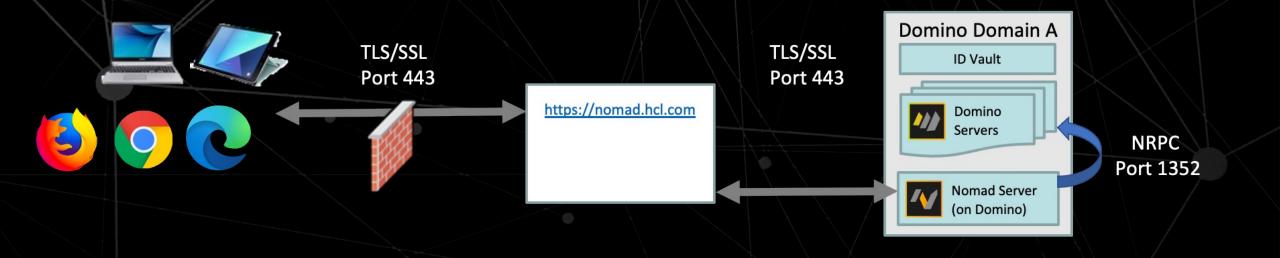
Domino Exchange Connector Domino to O365 (Cloud mailboxes)

Free Busy Retrieval

#### **Use Nomad Web without Safelinx**

#### Easy:

- Runs on Domino
- No need to deploy SafeLinx
- Does not require relational DB



#### **Danube Early Access Program**

FREE access to the EAP for anyone with a current Domino subscription

#### Monthly releases from May – September

- May 25<sup>th</sup> Drop 1 Domino (Windows & Linux)
- June Drop 2 Domino
- July Drop 3 Domino, Notes & Languages
- August Drop 4 Domino & Notes
- September Drop 5 Domino & Notes

Feedback Forum at: https://hclsw.co/danube-eap-forum

#### **Drop 1 Teasers**

- 256bit AES Encryption for databases
- Add the validjson tool into the admin client
- DAOS update
- DQL Optimization
- New AntiVirus scanning options with ICAP
- SELinux support in Enforcing Mode
- Support 5.x Linux kernels
- Support for FIPS 140-2
- "Tell Domino Support" console command
- Windows VSS support in Domino Backup
- XPages: Upgrade CKEditor
- And more...



Early Access Program plans are ALWAYS subject to change.

#### **New Domino NextGen Jams**



#### NextGen Agenda:

- Domino Designer
- Restyle
- Upgrade Best Practices
- Volt MX Go

Pilot event in Frankfurt - July, 22

#### Starting in Sept 2022:

- Warsaw
- Paris
- Milan
- Tokyo
- Stockholm
- Berlin
- Prague
- Zürich
- Delhi
- Mumbai

- New York
- Toronto
- Madrid
- London
- Rio de Janeiro
- Sao Paolo
- Singapore
- Sydney

#### The Road Ahead: 3-Year View of WoWs

#### "Danube"

- Better-Looking Apps
- Secure Mail
- Easy Meeting scheduling

**OND 2022** 

### "Thames"

- Domino Designer Client
- TCO
- Unified web experience

**OND 2023** 

#### "Rio Grande" vNEXT

- Even easier upgrades
- TCO
- IDE improvement

**OND 2024** 

## **Recommended Sessions - Tuesday**

- St 07. Sametime V12 Launch EMEA Event 13:30 - 14:30 | C. Room 4-5 Ginni Saini & Barry O'Nan
- St 10. Notes 12.0.1, 12.0.2 and beyond 15:45 - 16:30 | B. Room 4-5 Ram Krishnamurthy & Barry Rosen
- St 02. Nomad Deep Dive 16:45 - 17:30 | A. Room 1-2 Thomas Hampel & Bob Sielken

- St 03. HCL Connections Roadmap: Faster Deployment, Better Integration, Reinvented User Experience 16:45 17:30 | B. Room 4-5
  - 16:45 17:30 | B. Room 4-5 Adam Gartenberg & Rene Schimmer
- St 11. Avoid the PVU trap upgrade your Domino licensing
  16:45 17:30 | C. Room 6
  Uffe Sorensen

## **Recommended Sessions - Wednesday**

- De16. HCL Digital Experience & HCL Volt MX Better Together 09:00 - 10:00 | E. Room 12 Herbert Hilhorst & Dai Nguyen
- De02. Domino Designer Jam

11:30 - 12:30 | C. Room 6 Tim Clark, Thomas Hampel & Barry Rosen

- De14. Workflow wonders with Domino Volt v1.0.5
  14:45 15:45 | D. Room 7-8
  Tim Clark
- De11. & De12. Domino Restyle Hands-on Design workshop A & B 14:45 16:45 | E. Room 12 Mary Miller, Thomas Hampel & Luis Guirigay