

From Protocol to Product...

Matrix for the workplace



Danielle Kirkwood

Speaker

- Danielle Kirkwood, Product Management @ Element

Mission: Connect People

- We build & sell a sovereign and secure open collaboration platform

Agenda

- Build or Buy; Factors to consider when looking for a comms platform
- Transforming the protocol into product
- Element Server Suite



LAYERS

WORKPLACE



Frontend

Backend

Open standard

[matrix]

Deciding whether to buy or build?

Ask yourself, do I need:

Control over chat room hierarchies

Secure Border Gateways

Auditing for compliance

Centralized administration

Early notice of security updates

Flexible retention policies

- Capabilities
- Cost
- Resources
- Time
- Long-term maintenance

YES



element Server Suite

The new requirements for communications.



78%

High availability and uptime



78%

End-to-end encryption



75%

Reliability



71%

Federation



69%

Data sovereignty



68%

Scalability



61%

Ease of deployment



55%

Open standard



Matrix.

The protocol can address *some* of those:

- Open standard and interoperability
- Data sovereignty
- End-to-end encryption and security
- Federation and resilience

But it's not as easy as that...

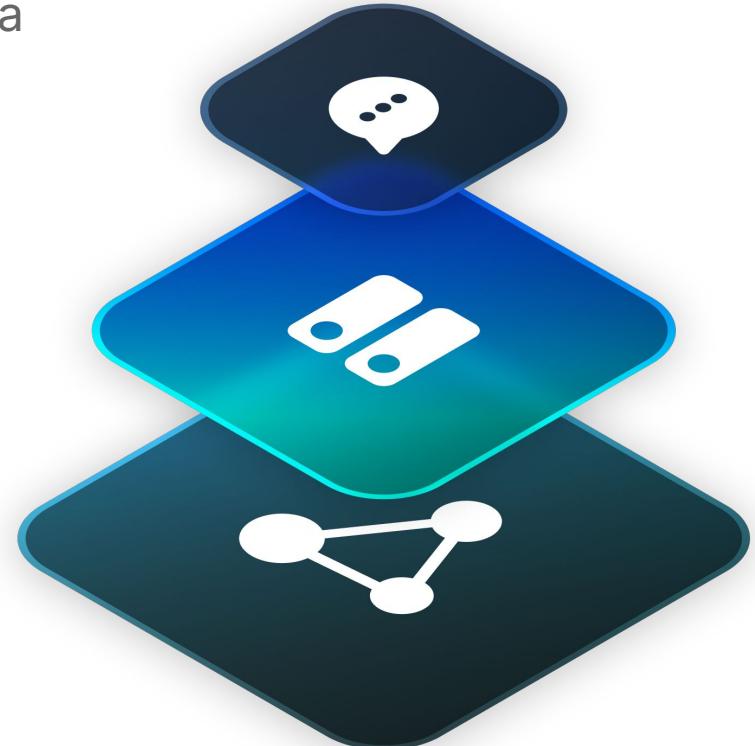
PEOPLE

Protocol to product

Transforming the open standard, Matrix, into a professional, user-friendly, versatile product

Allowing you to focus on what matters most and addressing real-world needs

- User interaction
- Integration into workflows
- Management and support tools
- Enterprise-level features
- Flexible deployment & configuration





A backend server
for your setup.



element Server Suite

SECTIONS



Users



User info



Add user

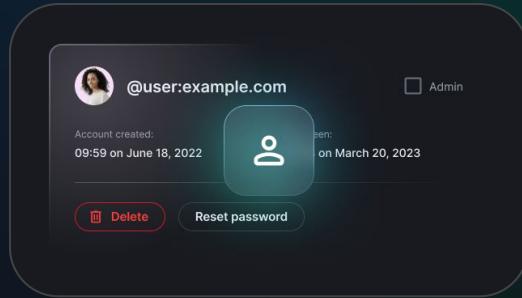


Rooms



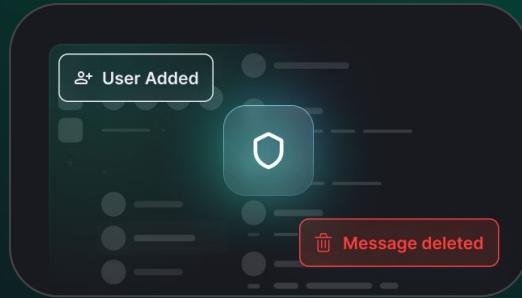
Admin Console

Manage the future of real-time communication.



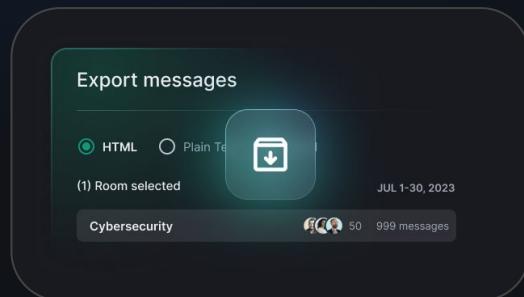
Identity and Access Management

Support for single sign-on (SSO) integration.



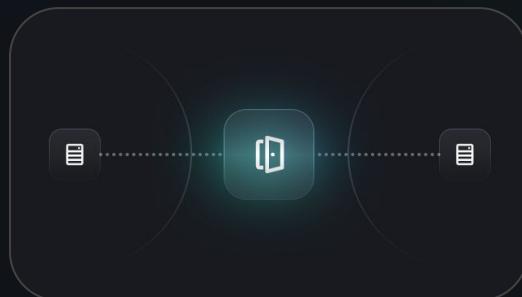
Moderating

Corporate oversight and management of your organisation's conversations.



Auditing

Capture an official record of conversations for compliance.



Secure Border Gateways

Add an extra layer of security.

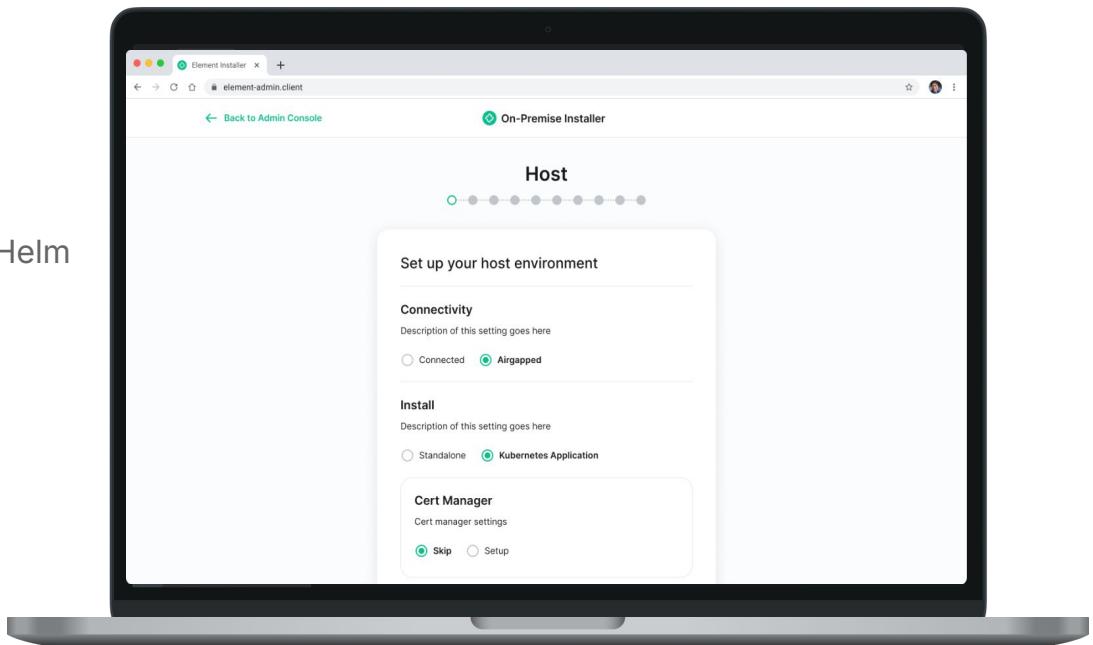


Flexible deployments

Build your system how suits you best

Deployment

- Simple, flexible deployment
- It's Kubernetes & runs as an Operator
- Use the graphical interface installer, or Helm charts



Admin Console

- UI for administering your homeserver
- Accessibility best practices
- A 'single pane of glass' providing full control of your server settings

The screenshot shows the Element Admin Console interface. At the top, there's a logo consisting of three overlapping circles and the text "Admin Console" next to it. To the right, it says "example.com". Below this, there's a section titled "SECTIONS" with three items: "Users" (selected), "User info", and "Add user". Under "Users", there's a card for a user named "Alice" from "example.com". The card displays her profile picture, her name, and the text "Account created: 09:59 on March 8, 2024". At the bottom of the card are two buttons: "Delete" (in red) and "Re".

Configure

- ESS Admin Console allows you to manage and change the various parts of your homeserver deployment
- Configure a large number of server integrations that fit your specific requirements

The screenshot shows the Admin Console interface with the title "Admin Console" at the top left. At the top right, there are "Configure" and "Admin" buttons, and a user profile icon. Below the title, a sidebar titled "SECTIONS" lists various management options: Host, Domains, Certificates, Cluster, Synapse, Element Web, Homeserver Admin, Integrator, and Integrations. The "Integrations" option is highlighted with a light gray background. The main content area is titled "Integrations". It displays five integration modules in cards:

- Adminbot**: Deploys an Adminbot which automatically joins rooms. Admins can manage rooms by impersonating the Adminbot. A green "Install" button is present.
- Auditbot** (Installed): Deploys an Auditbot which automatically joins rooms and logs every messages to configured outputs. A green "Configure" button is present.
- Element Call** (Experimental): Full mesh VOIP group calls powered by Matrix, implementing MatrixRTC. A green "Install" button is present.
- Group Sync**: Configure users and roles from an external source. A green "Install" button is present.
- Hookshot**: Forward messages from external sources into rooms as they occur. A green "Install" button is present.

On the right side of the main content area, there is a "Deployment Status" box showing "Success" and the message "Last reconciliation succeeded". Below it is a large green "Deploy" button.

ID Management

- Use your SSO credentials
- Integrate with Active Directory, LDAP, SAML 2.0, CAS and OIDC
- Simplify identity management and save administrative burden

The screenshot shows a user profile for '@user@example.com'. The profile includes a small circular photo of a person with dark hair, the email address '@user@example.com', and a 'Admin' status indicator. Below the profile, account creation details are shown: 'Account created: 09:59 on June 18, 2022' and 'Last seen: on March 20, 2023'. A large teal button with a user icon is visible. At the bottom, there are two red buttons: 'Delete' with a trash icon and 'Reset password'. Below the main profile area, there are four smaller cards representing integration options:

- LDAP**: Represented by three red mountain-like icons.
- SAML**: Represented by the word 'SAML' in blue.
- CAS**: Represented by the letters 'CAS' in blue and green.
- Open ID Connect**: Represented by a stylized orange and grey 'C' icon.

Manage

- Admin Tools allow for easy administration of your server and it's users
 - Manage users
 - Manage rooms
 - View media storage
 - Manage federation

The screenshot shows the Element Admin Console interface. On the left, there is a sidebar with sections: Users (selected), Rooms, Media, Server Info, Reported Events, Federation, Admin Bot, and Audit. The main area is titled 'Users' with a blue 'Add' button. A 'Filter' input field is present. Below it, there are checkboxes for 'Include deactivated accounts', 'Include guest accounts', and 'Include support and bot accounts'. A table lists 'All users' with columns: MATRIX ID, DISPLAY NAME, and IS ADMIN?. There are five entries: danielle (@danielle:element.demo), kabbott (@kabbott:element.demo), matthew (@matthew:element.demo), patrick (@patrick:element.demo), and rick (@rick:element.demo). At the bottom, there are buttons for 'Show 10' and navigation arrows.

MATRIX ID	DISPLAY NAME	IS ADMIN?
D @danielle:element.demo	danielle	
K @kabbott:element.demo	kabbott	
M @matthew:element.demo	matthew	
P @patrick:element.demo	patrick	
R @rick:element.demo	rick	

Help and Support • Legal • Privacy Copyright © 2023 Element

Secure border gateways

- Add an extra layer of security
- Control the flow of traffic between user and rooms
- Customise access permissions between federated homeservers
- Use predefined rules set by your organisations (not ours!)



Auditing

- Read-only access for all rooms
- Visible to all end users to ensure transparency
- Direct messages between two individuals can be excluded
- Set retention period for messages and media

Export messages

HTML Plain Text



(1) Room selected

JUL 1-30, 2023

Cybersecurity



50

999 messages

Data retention

Automatically delete messages after set time.

Enabled:



Messages:

123

days

Delete messages 123 days after they were created.

Moderating

- Administer rooms centrally
- A moderator has top level permissions
- Moderators are visible to users to ensure transparency
- Remove unwanted messages/files from rooms

