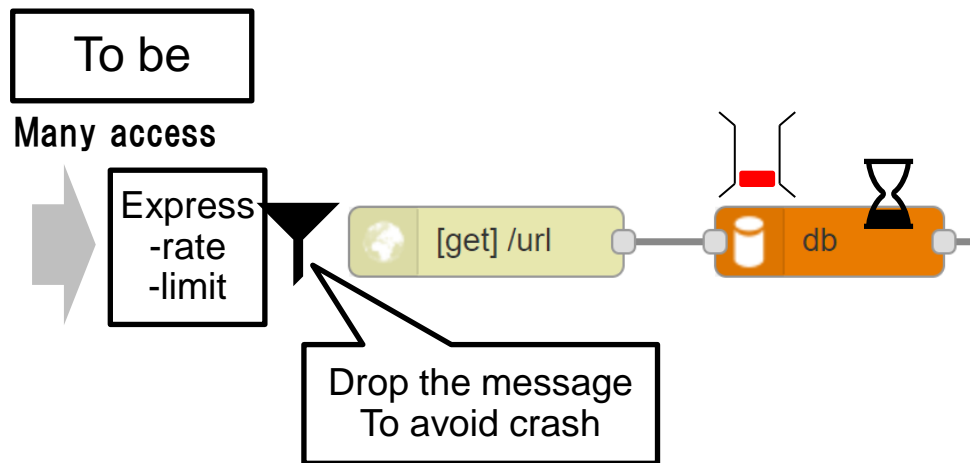
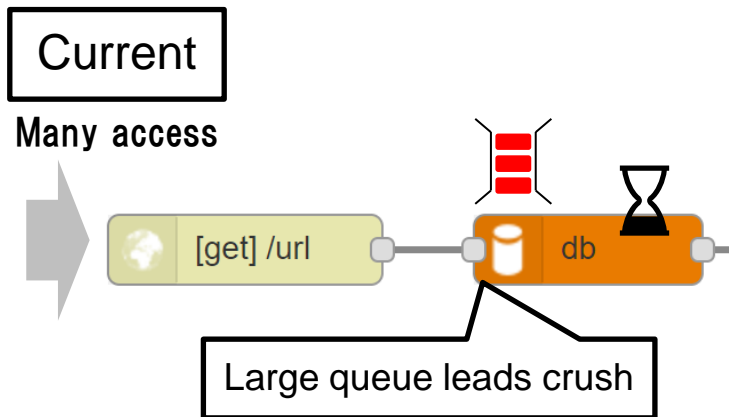


We investigated the middleware to limit rate of incoming message.



And we also have a plan to investigate the authentication using middleware.

## # Question

1 Can we add the example of middleware to the official website after our investigation?

### Enabling HTTPS Access

Refreshing HTTPS certificates

### Editor & Admin API security

Username/password based authentication

Generating the password hash

OAuth/OpenID based authentication

Setting a default user

User permissions

Token expiration

Accessing the Admin API

Custom user authentication

Custom authentication tokens

### HTTP Node security

### Custom Middleware

## Custom Middleware

It is possible to provide custom HTTP middleware that will be added in front of all `HTTP In` nodes and, since Node-RED 1.1.0, in front of all admin/editor routes.

For the `HTTP In` nodes, the middleware is provided as the `httpNodeMiddleware` setting.

For the admin/editor routes, the middleware is provided as the `httpAdminMiddleware` setting.

For example, the following middleware could be used to set the `X-Frame-Options` http header on all admin/editor requests. This can be used to control how the editor is embedded on other pages.

```
httpAdminMiddleware: function(req, res, next) {  
  // Set the X-Frame-Options header to limit where the editor  
  // can be embedded  
  res.set('X-Frame-Options', 'sameorigin');  
  next();  
},
```

Other possible uses would be to add additional layers of security or request verification to the routes.

We would like to add more information about middleware

<https://nodered.org/docs/user-guide/runtime/securing-node-red#custom-middleware>

- Dashboard user guide

We are going to publish the document from the next month

- Node testing guide (Ready to merge)

The screenshot shows a GitHub pull request interface. At the top, there's a search bar and navigation links for Pulls, Issues, Marketplace, and Explore. Below this, the repository path is 'node-red / node-red.github.io'. The 'Pull requests' tab is selected, showing 22 pull requests. The specific pull request is titled 'Add testing guideline #109' and is in a 'Ready to merge' state. It shows 6 commits from 'kazuhitoyokoi:master' being merged into 'node-red:master'. Below the pull request details, there are tabs for Conversation (16), Commits (6), Checks (0), and Files changed (2). A comment from 'kazuhitoyokoi' dated 8 Apr 2019 is visible, stating: 'I added testing guideline page which we discussed on the following wiki page. If there is a suggestion about the contents, please add the comments.' The comment includes two bullet points: 'Wiki page' and 'Original document'.

<https://github.com/node-red/node-red.github.io/pull/109>