Alertmanager UI 설계

알람-Alerting

Cluster Healthy Dashboard

Prometheus Query

BOX	용도	prom Query	Value
Alert Count	Active Alerting Total 갯수	alertmanager_alerts{state="active"}	Count
APIServer Health	APIServer 서비스 상태	up{job="kubernetes-apiservers"}	1 -> Normal Null -> Down
NodeNotReady Count	NodeNotReady 갯수/전체 노드수	count(kube_node_status_condition{condition="Ready",status="true"} == 0) count(kube_node_status_condition{condition="Ready",status="true"} == 1)	Count
NodeDown Count	NodeDown 갯수/전체 노드수	count(up{component="node-exporter",job="kubernetes-monitoring-endpoints"} == 0) count(up{component="node-exporter",job="kubernetes-monitoring-endpoints"} == 1)	Count

Firing Alert Table

Example Table

Time(Start At)	severity	Type	receiver	description
2018-05-23 10:29	warning	PodFrequentlyRestarting	first-reciever	Pod kube-system/metering-reader-amd64-khz2x
2018-05-22 15:09	critical	NodeDown	first-reciever	10.38.11.238: Kubelet servers is unhealthy
2018-05-20 13:11	warning	NodeCPUUsage	second-reciever	10.178.158.147:9100: CPU usage is above 75% (current value is: 91.06130817453969)

Alertmanager API JSON Data Source

Time(Start At)	severity	Type	receiver	description
startsAt	labels -severity	labels - alertname	receivers	annotations - description

```
$ curl -X GET
http://alertmanager.zcp-dev.jp-tok.containers.mybluemix.net/api/v1/alerts
{
 "status": "success",
 "data": [{
   "labels": {
    "alertname": "NodeMemoryUsage",
    "app": "prometheus",
    "component": "node-exporter",
    "env": "SK-CPS-ICCS-K8S-DEV",
    "instance": "10.178.218.186:9100",
    "job": "kubernetes-monitoring-endpoints",
    "kubernetes_name": "prometheus-node-exporter",
    "kubernetes_namespace": "monitoring",
    "receiver_name": "second_receiver",
    "severity": "warning"
   },
   "annotations": {
    "description": "10.178.218.186:9100: Memory usage is above 10% (current
value is: 68.48442083267288)"
   },
   "startsAt": "2018-05-31T07:16:27.040533117Z",
   "endsAt": "2018-06-01T09:54:12.046851392Z",
   "generatorURL":
"http://prometheus.zcp-dev.jp-tok.containers.mybluemix.net/graph?g0.expr=%
28%28%28node_memory_MemTotal+-+node_memory_MemFree+-+node_memory_Cached%29
+%2F+%28node_memory_MemTotal%29+%2A+100%29%29+%3E+10\u0026g0.tab=1",
   "status": {
    "state": "active",
    "silencedBy": [],
    "inhibitedBy": []
   },
   "receivers": ["second_receiver"],
   "fingerprint": "2ee1a35206a9033a"
 }, {
   "labels": {
    "alertname": "NodeCPUUsage",
    "env": "SK-CPS-ICCS-K8S-DEV",
    "instance": "10.178.218.190:9100",
    "severity": "warning"
   },
   "annotations": {
    "description": "10.178.218.190:9100: CPU usage is above 75% (current
value is: 94.19922656352433)",
    "summary": "10.178.218.190:9100: High CPU usage detected"
   },
   "startsAt": "2018-06-01T09:33:26.245001145Z",
   "endsAt": "2018-06-01T09:54:11.252133211Z",
   "generatorURL":
"http://prometheus.zcp-dev.jp-tok.containers.mybluemix.net/graph?g0.expr=%
28100+-+%28avg+by%28instance%29+%28irate%28node_cpu%7Bcomponent%3D%22node-
exporter%22%2Cmode%3D%22idle%22%7D%5B5m%5D%29%29+%2A+100%29%29+%3E+75\u002
```

```
6g0.tab=1",
  "status": {
    "state": "active",
    "silencedBy": [],
    "inhibitedBy": []
```

```
        },
        "receivers": ["sk-cps-team"],
        "fingerprint": "3a56b480ccceb107"
```

알람-Rules

Rules List

Rule 추가

Rule 상세

알람-Channel

Alertmanager API JSON Data Source

receivers list	notication list & config by receiver
configJSON - receivers - name	configJSON - receivers - [notification]_configs

```
{
    "data": {
        "configJSON": {
            "global": {
                "hipchat_api_url": "https://api.hipchat.com/",
                "opsgenie_api_url": "https://api.opsgenie.com/",
                "pagerduty_url": "https://events.pagerduty.com/v2/enqueue",
                "resolve_timeout": 300000000000,
                "slack_api_url": "<secret>",
                "smtp_auth_password": "<secret>",
                "smtp_auth_username": "foo@bar.com",
                "smtp_from": "foo@bar.com",
                "smtp_require_tls": true,
                "smtp_smarthost": "smtp.gmail.com:587",
                "victorops_api_url":
"https://alert.victorops.com/integrations/generic/20131114/alert/",
                "wechat_api_url": "https://qyapi.weixin.qq.com/cgi-bin/"
            },
            "receivers": [
                {
                    "name": "sk-cps-team",
                    "slack_configs": [
                        {
                            "api_url": "<secret>",
```

```
                                "color": "{{ if eq .Status \"firing\"
}}danger{{ else }}good{{ end }}",
                                "fallback": "{{ template
\"slack.default.fallback\" . }}",
                                "footer": "{{ template \"slack.default.footer\"
. }}",
                                "icon_emoji": "{{ template
\"slack.default.iconemoji\" . }}",
                                "icon_url": "{{ template
\"slack.default.iconurl\" . }}",
                                "pretext": "{{ template
\"slack.default.pretext\" . }}",
                                "send_resolved": true,
                                "text": "{{ template \"slack.default.text\" .
}}",
                                "title": "{{ template \"slack.default.title\" .
}}",
                                "title_link": "{{ template
\"slack.default.titlelink\" . }}",
                                "username": "{{ template
\"slack.default.username\" . }}"
                            }
                        ],
                        "webhook_configs": [
                            {
                                "send_resolved": true,
                                "url": "http://webhook-svc:5000/webhook"
                            }
                        ]
                    },
                    {
                        "name": "first_receiver",
                        "slack_configs": [
                            {
                                "api_url": "<secret>",
                                "color": "{{ if eq .Status \"firing\"
}}danger{{ else }}good{{ end }}",
                                "fallback": "{{ template
\"slack.default.fallback\" . }}",
                                "footer": "{{ template \"slack.default.footer\"
. }}",
                                "icon_emoji": "{{ template
\"slack.default.iconemoji\" . }}",
                                "icon_url": "{{ template
\"slack.default.iconurl\" . }}",
                                "pretext": "{{ template
\"slack.default.pretext\" . }}",
                                "send_resolved": true,
                                "text": "{{ template \"slack.default.text\" .
}}",
                                "title": "{{ template \"slack.default.title\" .
}}",
                                "title_link": "{{ template
```

```
                                \"slack.default.titlelink\" . }}",
                                "username": "{{ template
\"slack.default.username\" . }}"
                            }
                        ],
                        "webhook_configs": [
                            {
                                "send_resolved": true,
                                "url": "http://webhook-svc:5000/webhook"
                            }
                        ]
                    },
                    {
                        "hipchat_configs": [
                            {
                                "XXX": null,
                                "api_url": "https://nexcore.hipchat.com/",
                                "auth_token": "<secret>",
                                "color": "{{ if eq .Status \"firing\" }}red{{
else }}green{{ end }}",
                                "from": "{{ template \"hipchat.default.from\" .
}}",
                                "message": "{{ template
\"hipchat.default.message\" . }}",
                                "message_format": "text",
                                "notify": true,
                                "room_id": "4603546",
                                "send_resolved": true
                            }
                        ],
                        "name": "second_receiver",
                        "slack_configs": [
                            {
                                "api_url": "<secret>",
                                "color": "{{ if eq .Status \"firing\"
}}danger{{ else }}good{{ end }}",
                                "fallback": "{{ template
\"slack.default.fallback\" . }}",
                                "footer": "{{ template \"slack.default.footer\"
. }}",
                                "icon_emoji": "{{ template
\"slack.default.iconemoji\" . }}",
                                "icon_url": "{{ template
\"slack.default.iconurl\" . }}",
                                "pretext": "{{ template
\"slack.default.pretext\" . }}",
                                "send_resolved": true,
                                "text": "{{ template \"slack.default.text\" .
}}",
                                "title": "{{ template \"slack.default.title\" .
}}",
                                "title_link": "{{ template
\"slack.default.titlelink\" . }}",
```

```
                                "username": "{{ template
\"slack.default.username\" . }}"
                           }
                      ],
                      "webhook_configs": [
                           {
                                "send_resolved": true,
                                "url": "http://webhook-svc:5000/webhook"
                           }
                      ]
                 },
                 {
                      "hipchat_configs": [
                           {
                                "XXX": null,
                                "api_url": "https://nexcore.hipchat.com/",
                                "auth_token": "<secret>",
                                "color": "{{ if eq .Status \"firing\" }}red{{
else }}green{{ end }}",
                                "from": "{{ template \"hipchat.default.from\" .
}}",
                                "message": "{{ template
\"hipchat.default.message\" . }}",
                                "message_format": "text",
                                "room_id": "4603546",
                                "send_resolved": true
                           }
                      ],
                      "name": "hipchat-alert"
                 },
                 {
                      "email_configs": [
                           {
                                "auth_password": "<secret>",
                                "auth_username": "zcp-sender-api-key",
                                "from": "Alertmanager
<alertmanager@zcp.test.com>",
                                "headers": {
                                     "From": "Alertmanager
<alertmanager@zcp.test.com>",
                                     "Subject": "{{ template
\"email.default.subject\" . }}",
                                     "To": "mjsjinsu@gmail.com"
                                },
                                "html": "{{ template \"email.default.html\" .
}}",
                                "require_tls": false,
                                "send_resolved": true,
                                "smarthost": "smtp.sendgrid.net:465",
                                "to": "mjsjinsu@gmail.com"
                           }
                      ],
                      "name": "email-alert"
```

```
                    }
                ],
                "route": {
                    "group_by": [
                        "alertname",
                        "instance",
                        "receiver"
                    ],
                    "group_interval": 60000000000,
                    "group_wait": 30000000000,
                    "receiver": "sk-cps-team",
                    "repeat_interval": 60000000000,
                    "routes": [
                        {
                            "match": {
                                "receiver_name": "sk-cps-team"
                            },
                            "receiver": "sk-cps-team"
                        },
                        {
                            "match": {
                                "receiver_name": "first_receiver"
                            },
                            "receiver": "first_receiver"
                        },
                        {
                            "match": {
                                "receiver_name": "second_receiver"
                            },
                            "receiver": "second_receiver"
                        }
                    ]
                },
                "templates": [
                    "/etc/alertmanager-templates/*.tmpl"
                ]
            },
```