instant

CHIME

CHIME HEALTH MONITORING

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INTRODUCTION

Chime, as an integration platform for multiple IM, database, and directory services has various points of integration that may experience intermittent issues or outages. The application requires connections with a Microsoft SQL server, Microsoft Active Directory, and the Microsoft Lync/Skype for Business server. Changes in the network environment, expiring passwords, and firewalls all pose a potential to interrupt the Chime service.

Chime provides Health Monitoring capabilities intended to mitigate these risks. The main point of Health Monitoring occurs in the ride-along process ChimeHealthMonitor.exe. On top of that, the Chime platform provides an HTTP API for querying the status of the service.

This document will provide an overview of the various Health Monitoring APIs within the Chime platform, how to use them, how alert notifications are sent out, and what to do when failures occur.

This document is intended as a guide to help you fully utilize Health Monitoring in Chime. If you have any further questions, please contact us at support@instant-tech.com

SEND EMAIL ALERTS ON CRITICAL FAILURES

The first layer of monitoring Chime provides is an email notification to administrators on critical failures. The Email Settings area of Chime (under Admin > Settings) is where this monitoring is configured. An SMTP server and account are used to send an email notification to either all administrators and/or support@instant-tech.com, according to the checkboxes in this area.

Figure 1: Email settings

HEALTH MONITOR PAGE

The Health Monitor area of Chime (under Admin > Health Monitor) provides a high-level summary of the service. At the top of the page, the system up-time is listed. Next, there is an indicator about the status of the ChimeHealthMonitor.exe process. This is seen as the green text "Health Monitor Running". The different sections below are green if they are healthy and red if they are not configured properly. Each section can be expanded to see more information. The last three connections are optional for the service to function properly (ChimeHub, Web Client, and SMTP).
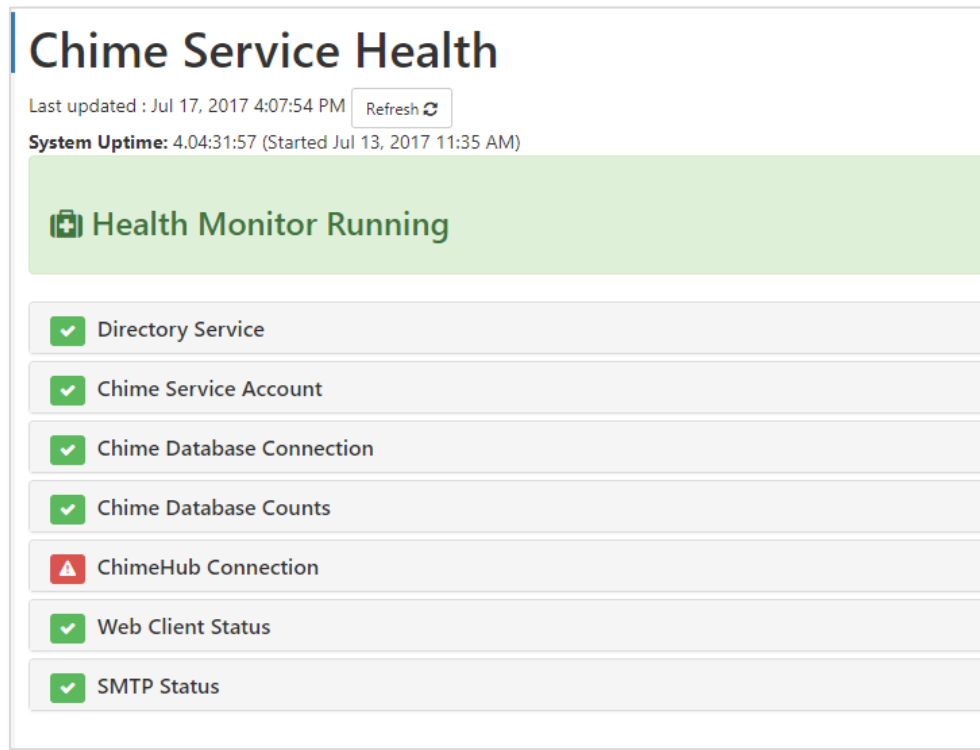

Figure 2: Chime service Health Monitor page

HEALTH MONITOR PROCESS

When the Chime service starts, it starts a ride-along process called ChimeHealthMonitoring.exe. This can be seen in the Task Manager on the Chime server. The ChimeHealthMonitor.exe does not require any maintenance by IT staff or Chime administrators. This process starts when Chime begins and continues to run as long as Chime is running.

The ChimeHealthMonitoring.exe behaves as follows, every five minutes the process makes an HTTP request to the Chime service and asks for a health checkup. The health checkup includes all of the areas seen in the Health Monitoring page (except for checking if the health monitor, itself, is running). In addition, it checks if:

- the Chime service is running
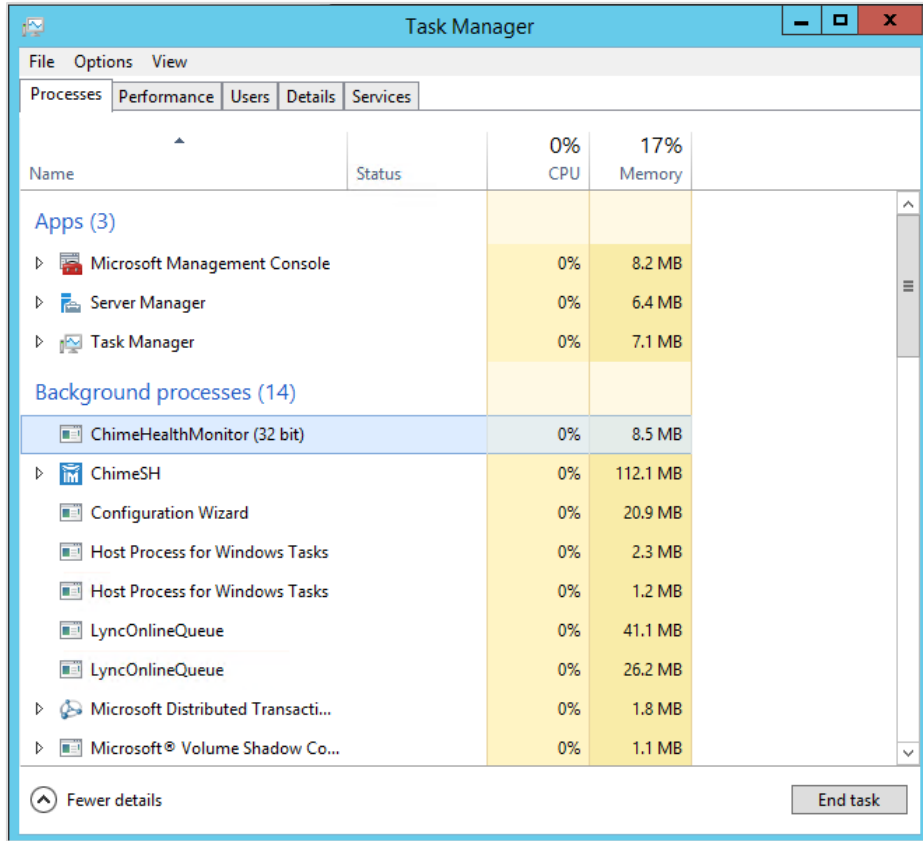- each enabled queue is running as expected

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Figure 3: ChimeHealthMonitor.exe seen in Task Manager

If any of these areas fail, an alert email will be sent to Chime administrators, only if the Email Settings are configured in Admin > Settings > Email Settings. Subsequent alert emails will be sent only if the status is different. This prevents administrators from being spammed with emails about the same ongoing issue.

HEALTH MONITOR APIS

The following HTTP web APIs are available for monitoring different aspects of the Chime service. For example, in a high availability setup these APIs may be used to determine the status of the service. The following APIs are all available using the HTTP verb **GET** to the following URLs prefixed with **Your.server.name/Chime/API/Health.**

URL	Description	Result	
		Healthy	**Failure**
/Status/	Simple check whether Chime is running at all	200 OK	No response
/Status/AD	Check if the Active Directory connection is working	200 OK	500 Internal Server Error
/Status/DB	Check if the SQL server connection is working	200 OK	500 Internal Server Error

/Status/Queue/{id}	Check if a particular queue, by ID, is running. Performs no health check on the queue.	200 OK	500 Internal Server Error
/Status/Uptime	Get the uptime of the Chime service	200 OK "21:20:53.2919157"	No response
/Status/HealthMonitor	Comprehensive health check performed by the ChimeHealthMonitoring.exe	200 OK (see response below)	500 Internal Server Error

Sample healthy response from "/Status/HealthMonitor"

```
{
    "Ok": true,
    "Status": {
        "Chime service": "Ok",
        "Chime service account": "Ok",
        "Chime SMTP service": "Ok",
        "SQL server": "Ok",
        "Active Directory": "Ok",
        "ChimeHub": "Ok",
        "Web Client": "Ok",
        "Queue 2 (PB & J queue) LyncOnlineQueue.exe": "Ok",
        "Queue 2 (PB & J queue) Routing": "Ok",
        "Queue 2 (PB & J queue) Expert pool chat count": "Ok",
        "Queue 2 (PB & J queue) Queue listener": "Ok",
        "Queue 2 (PB & J queue) Alerting": "Ok",
        "Queue 2 (PB & J queue) Scheduler": "Ok",
        "Queue 2 (PB & J queue) SMTP service": "Ok",
        "Queue 2 (PB & J queue) SignalR": "Ok"
    },
    "System": {
        "Service": {
            "Status": true,
            "Details": null
        },
        "ServiceAccount": {
            "Status": true,
            "Details": null
        },
        "Smtp": {
            "Status": true,
            "Details": null
        },
        "SQL": {
            "Status": true,
            "Details": null
        },
        "ActiveDirectory": {
            "Status": true,
            "Details": null
        },
        "ChimeHub": {
            "Status": true,
            "Details": null
        },
```

```
        "WebClient": {
            "Status": true,
            "Details": null
        }
    },
    "Queues": [
        {
            "Process": {
                "Status": true,
                "Details": null
            },
            "Routing": {
                "Status": true,
                "Details": null
            },
            "ExpertPool": {
                "Status": true,
                "Details": null
            },
            "QueueListener": {
                "Status": true,
                "Details": null
            },
            "Alerting": {
                "Status": true,
                "Details": null
            },
            "Scheduler": {
                "Status": true,
                "Details": null
            },
            "Smtp": {
                "Status": true,
                "Details": null
            },
            "SignalR": {
                "Status": true,
                "Details": null
            },
            "QueueId": 2,
            "Name": "PB & J queue",
            "Ok": true,
            "Status": {
                "Queue 2 (PB & J queue) Routing": "Ok",
                "Queue 2 (PB & J queue) Expert pool chat count": "Ok",
                "Queue 2 (PB & J queue) Queue listener": "Ok",
                "Queue 2 (PB & J queue) Alerting": "Ok",
                "Queue 2 (PB & J queue) Scheduler": "Ok",
                "Queue 2 (PB & J queue) SMTP service": "Ok",
                "Queue 2 (PB & J queue) SignalR": "Ok"
            }
        }
    ]
}
```