An XMPP Extension Protocol Proposal for the IT-System

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Abstract

The XMPP extended protocol that I suggest through this study, can be used in various ways such as basic monitoring, log observation, system security, security incidence, User defined monitoring, etc. Also, this expanded use of XMPP extending protocol can broaden into not only server or network devices but also appliances on various things.

Index Terms: XMPP, XEP, Monitoring on IT-System, Performance

I. INTRODUCTION

Many companies runs their own systems for providing various IT services. In order to provide their IT services consistently, companies run systems that monitor server or network equipment. The most popular structure of such monitoring system that is being widely operated these days is based on custom-defined protocol, which has traditional server-agent structure.

Therefore, this dissertation suggests XMPP extending protocol to be used in monitoring process such as monitoring server and network equipment periodically, collecting faults alarms and receiving performance information to cause the event [1].

II. Monitoring System Modeling

Through the analysis of traditional monitoring system, the component, process and data of the system can be performed. The following table lists common terms and descriptions.

- Monitoring: Observing continuously a state change of an object(Entity).
- Resource: A hardware device using as a server or a network device.
- Monitoring object: The target entity which is monitored like resource, software or system.
- Monitoring item: One item that can be considered as one monitoring target like cpu usage, mysql process, 9090 port, etc.
- Agent: An XMPP client that monitors items and sends fault events or performance data.
- Fault: Circumstances or conditions beyond the normal operating state.
- Performance: Collectible information that can be measured in value, such as processing speed and throughput.
The following picture shows the process how the traditional monitoring system to configure monitoring rules and notice alarm message from the agent (Fig. 1).

Fig. 1. Traditional Monitoring Process

III. CONCLUSION

In this dissertation, I suggest XML based XMPP Extending Protocol as the way of monitoring servers or network equipment. I analyzed current traditional monitoring system and designed the monitoring scenario and implementing system according to XMPP. According to the scenario, we can set up the way of monitoring system.

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REFERENCES
