

## **Element Technology – Network Service Monitoring**

### **Summary**

**Network Service Monitoring** is a function to periodically monitor the network service status.

The network service to be monitored must be registered in a system as a network service target list.

### **Description**

- **Network Service Monitoring** is intended to register the network service monitoring, and includes the following functions: registration, update, deletion, inquiry and list inquiry of the network service monitoring.

① Network Service Monitoring List Inquiry: Using the function to inquire the defined information in the order of the latest registration, and the search result is reflected on screen.

② Register Network Service Monitoring: It is to register the network service monitoring info and to inquire the registration result.

③ Update Network Service Monitoring: It is to update the registered network service monitoring info items.

④ Delete Network Service Monitoring: It is to delete the registered network service monitoring info.

⑤ Inquire Network Service Monitoring: It is to inquire the registered network service monitoring info.

⑥ Inquire Network Service Monitoring Log List: Using the network service monitoring log to inquire the defined information in the order of the latest registration, and the search result is reflected on screen.

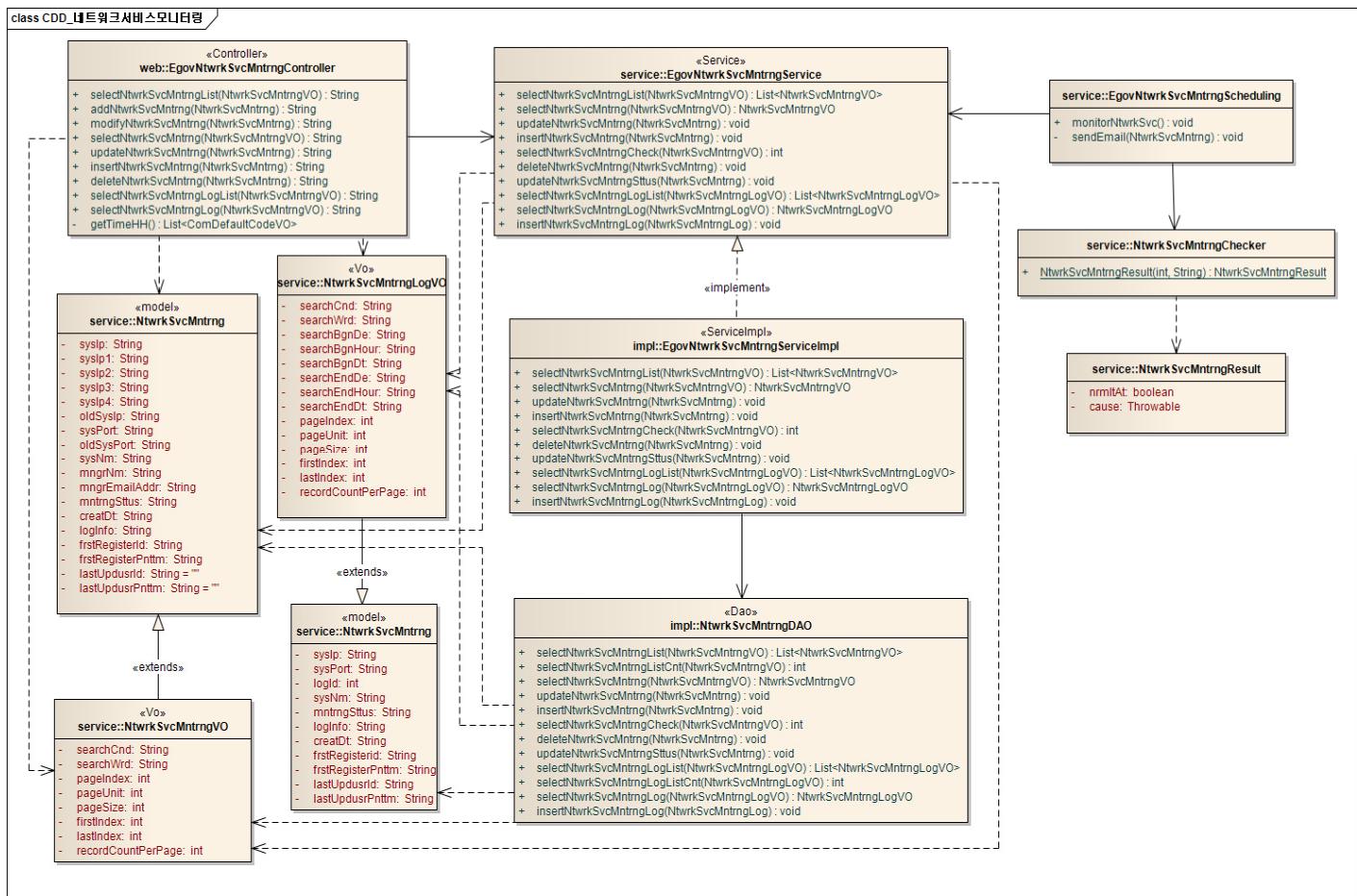
⑦ Network Service Monitoring Query: It is to inquire the registered network service monitoring log information

### **Related Sources**

Type	Corresponding Sources	Remarks
Controller	egovframework.com.utl.sys.nsm.web.EgovNtwrkSvcMntrngController.java	Controller class for the network service monitoring
Service	egovframework.com.utl.sys.nsm.service.EgovNtwrkSvcMntrngService.java	Service interface for the network service monitoring
ServiceImpl	egovframework.com.utl.sys.nsm.service.impl.EgovNtwrkSvcMntrngServiceImpl.java	Service implementation class for the network service monitoring
DAO	egovframework.com.utl.sys.nsm.service.impl.NtwrkSvcMntrngDAO.java	Data processing class for the network service monitoring
Model	egovframework.com.utl.sys.nsm.service.NtwrkSvcMntrng.java	Model class for the network service monitoring
Model	egovframework.com.utl.sys.nsm.service.NtwrkSvcMntrngLog.java	Model class for the network service monitoring log information
VO	egovframework.com.utl.sys.nsm.service.NtwrkSvcMntrngVO.java	VO class for the network service monitoring
VO	egovframework.com.utl.sys.nsm.service.NtwrkSvcMntrngLogVO.java	VO class for the network service monitoring log info
JSP	/WEB-INF/jsp/egovframework/utl/sys/nsm/EgovNtwrkSvcMntrngList.jsp	jsp page for the network service monitoring list inquiry
JSP	/WEB-INF/jsp/egovframework/utl/sys/nsm/EgovNtwrkSvcMntrngRegist.jsp	jsp page for the network service monitoring registration
JSP	/WEB-INF/jsp/egovframework/utl/sys/nsm/EgovNtwrkSvcMntrngUpdt.jsp	jsp page for the network service monitoring update
JSP	/WEB-	jsp page for inquire the

	INF/jsp/egovframework/util/sys/nsm/EgovNtrwkSvcmntrngDetail.jsp	registered network service monitoring
JSP	/WEB-INF/jsp/egovframework/util/sys/nsm/EgovNtrwkSvcmntrngLogList.jsp	jsp page for inquire the network service monitoring log list
JSP	/WEB-INF/jsp/egovframework/util/sys/nsm/EgovNtrwkSvcmntrngLogDetail.jsp	jsp page for inquire the registered network service monitoring log
XML	/egovframework/sqlmap/com/util/sys/nsm/EgovNtrwkSvcmntrng_SQL_* .xml	Network service monitoring QUERY XML

## Class Diagram



## Related Tables

Table Name	Table Name(English)	Remarks
Network Service Monitoring	COMTNNTWRKSVCVMNTRNG	It is to define and manage the properties information used to manage network service monitoring information.
Network Service Monitoring Log Information	COMTNNTWRKSVCVMNTRNGLOGINFO	It is to define and manage the properties information used to manage the network service monitoring log information.

## ID Generation

- In order to use the ID Generation Service, the **NTWRKSVC\_LOGID** item should be added to COMTECOPSEQ which is the sequence storage table.

```
INSERT INTO COMTECOPSEQ VALUES('NTWRKSVC_LOGID', '0');
```

## Scheduler Registration

- The following should be registered to the **context-scheduling.xml** file so as to register a network service monitoring scheduler.

```
<!--network service monitoring -->
<bean id="ntwrkSvcMntrng"
      class="org.springframework.scheduling.quartz.MethodInvokingJobDetailFactoryBean">
    <property name="targetObject" ref="egovNtwrkSvcMntrngScheduling" />
    <property name="targetMethod" value="monitorNtwrkSvc" />
    <property name="concurrent" value="false" />
</bean>

<!--network service monitoring trigger -->
<bean id="ntwrkSvcMntrngTrigger"
      class="org.springframework.scheduling.quartz.SimpleTriggerBean">
    <property name="jobDetail" ref="ntwrkSvcMntrng" />
    <!--It is executed 1 minute after it starts. (milisecond) -->
    <property name="startDelay" value="60000" />
    <!--It is executed for every 10 minutes. (milisecond) -->
    <property name="repeatInterval" value="600000" />
</bean>

'startDelay' sets the time delayed in seconds after the server starts. (ms unit: currently, 1 min)
'repeatInterval' sets the intervals of execution in seconds. (ms unit: currently, 10 min)

<!--monitoring scheduler -->
<bean id="mntrngScheduler" class="org.springframework.scheduling.quartz.SchedulerFactoryBean">
  <property name="triggers">
    <list>
      <ref bean="ntwrkSvcMntrngTrigger" />
    </list>
  </property>
</bean>
```

## Related Screens & Action Manuals

### Network Service Monitoring List Inquiry

Action	URL	Controller method	QueryID
Inquire	/utl/sys/nsm/selectNtwrkSvcMntrngList.do	selectNtwrkSvcMntrngList	"NtwrkSvcMntrngDAO.selectNtwrkSvcMntrngList"
Inquire	/utl/sys/nsm/selectNtwrkSvcMntrngList.do	selectNtwrkSvcMntrngList	"NtwrkSvcMntrngDAO.selectNtwrkSvcMntrngListCnt"

There are 10 items inquired per page on a network service monitoring list, with 10 pages in total. Search options are the system name, the system IP, the administrator name and the status.

## ② 네트워크서비스모니터링대상 목록

--선택하세요--

조회 등록

번호	시스템IP	시스템포트	시스템명	모니터링상태	관리자명
1	192.168.100.108	25000	대외연계시스템 #1	정상	홍길동
2	192.168.100.56	23	대외연계시스템 #2	비정상	홍길동
3	192.168.100.56	21	대외연계시스템 #3	정상	홍길동

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Inquiry: It is to inquire the registered network service monitoring list.

Registration: Using the Register button at the upper section to move to the **Network Service Monitoring Registration** screen in order to register a new network service monitoring.

System Name Click: It is to move to the **Detail Inquiry of the Network Service Monitoring Target** screen.

## Network Service Monitoring Registration

Action	URL	Controller method	QueryID
Register	/utl/sys/nsm/addNtwrkSvcMntrng.do	insertNtwrkSvcMntrng	"NtwrkSvcMntrngDAO.insertNtwrkSvcMntrng"

Insert the properties information of the network service monitoring, and then register.

## ③ 네트워크서비스모니터대상 등록

시스템IP *	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
시스템포트 *	<input type="text"/>			
시스템명 *	<input type="text"/>			
관리자명 *	<input type="text"/>			
관리자이메일주소 *	<input type="text"/>			
<input type="button" value="저장"/> <input type="button" value="목록"/>				

Save: After inserting the network service monitoring properties to register a new network service monitoring, register it using the **Save button** at the upper section.

List: It is used to move to the network service monitoring list inquiry screen.

## Network Service Monitoring Update

Action	URL	Controller method	QueryID
Update	/utl/sys/nsm/modifyNtwrkSvcMntrng.do	updateNtwrkSvcMntrng	"NtwrkSvcMntrngDAO.updateNtwrkSvcMntrng"

It is to update the network service monitoring properties information, and then save.

## ▶ 네트워크서비스모니터대상 설정

시스템IP *	192 . 168 . 100 . 108
시스템포트 *	25000
시스템명 *	대외연계시스템 #1
관리자명 *	홍길동
관리자이메일주소 *	egov@egov.or.kr

[저장](#) [목록](#)

Save: After updating the registered network service monitoring properties, update it using the **Save button** at the upper section.

List: It is used to move to the network service monitoring list inquiry screen.

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### **Detail Inquiry of the Network Service Monitoring**

Action	URL	Controller method	QueryID
Detail Inquiry	/utl/sys/nsm/selectNtwrkSvcMntrng.do	selectNtwrkSvcMntrng	“NtwrkSvcMntrngDAO.selectNtwrkSvcMntrng”
Delete	/utl/sys/nsm/deleteNtwrkSvcMntrng.do	deleteNtwrkSvcMntrng	“NtwrkSvcMntrngDAO.deleteNtwrkSvcMntrng”

It is to inquire the properties information of the network service monitoring.

## ▶ 네트워크서비스모니터대상 상세보기

시스템IP *	192.168.100.108
시스템포트 *	25000
시스템명 *	대외연계시스템 #1
관리자명 *	홍길동
관리자이메일주소 *	egov@egov.or.kr
모니터링상태	정상
마지막 생성일시	2010-09-30 15:45:20

[수정](#) [삭제](#) [목록](#)

Update: After updating the registered network service monitoring properties, move to the network service monitoring update screen using the **Update button** at the upper section.

Delete: It is to delete the registered network service monitoring information.

List: It is to move to the network service monitoring list inquiry screen.

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### **Network Service Monitoring Log List Inquiry**

Action	URL	Controller method	QueryID
Inquire	/utl/sys/nsm/selectNtwrkSvcMntrngLogList.do	selectNtwrkSvcMntrngLogList	“NtwrkSvcMntrngDAO.selectNtwrkSvcMntrngLogList”

Inquire	/utl/sys/nsm/selectNtwrkSvcMntrngLogList.do	selectNtwrkSvcMntrngLogList	"NtwrkSvcMntrngDAO.selectNtwrkSvcMntrngLogListCnt"
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There are 10 items inquired per page on a network service monitoring log list, with 10 pages in total. Search options are the system name, the system IP, the administrator name, the status and the monitoring time.



The screenshot shows a table with 10 rows of network service monitoring log entries. The columns are: 번호 (Number), 시스템IP (System IP), 시스템포트 (System Port), 시스템명 (System Name), 모니터링상태 (Monitoring Status), and 생성일시 (Creation Date). The data is as follows:

번호	시스템IP	시스템포트	시스템명	모니터링상태	생성일시
1	192.168.100.108	25000	대외연계시스템 #1	정상	2010-09-30 15:47:20
2	192.168.100.56	21	대외연계시스템 #3	정상	2010-09-30 15:46:45
3	192.168.100.56	23	대외연계시스템 #2	비정상	2010-09-30 15:46:20
4	192.168.100.108	25000	대외연계시스템 #1	정상	2010-09-30 15:46:20
5	192.168.100.56	21	대외연계시스템 #3	정상	2010-09-30 15:45:45
6	192.168.100.108	25000	대외연계시스템 #1	정상	2010-09-30 15:45:20
7	192.168.100.56	23	대외연계시스템 #2	비정상	2010-09-30 15:45:20
8	192.168.100.56	21	대외연계시스템 #3	정상	2010-09-30 15:44:45
9	192.168.100.108	25000	대외연계시스템 #1	정상	2010-09-30 15:44:20
10	192.168.100.56	23	대외연계시스템 #2	비정상	2010-09-30 15:44:20

◀ ▶ 1 2 3 4 5 6 7 8 9 10 ▶ ▷

Inquiry: It is to inquire the registered network service monitoring log list.

System Name Click: It is to move to the **Detail Inquiry of the Network Service Monitoring Log** screen.

#### **Detail Inquiry of the Network Service Monitoring Log**

Action	URL	Controller method	QueryID
Detail Inquiry	/utl/sys/nsm/selectNtwrkSvcMntrngLog.do	selectNtwrkSvcMntrngLog	"NtwrkSvcMntrngDAO.selectNtwrkSvcMntrngLog"

It is to inquire the properties of the network service monitoring log.

▶ 네트워크서비스모니터링로그 상세보기

로그ID *	000000000000000000261
시스템IP *	192.168.100.56
시스템포트 *	23
시스템명 *	대외연계시스템 #2
모니터링상태 *	비정상
로그정보	Connection timed out: connect
생성일시 *	2010-09-30 15:46:20

[목록](#)

List: It is to move to the network service monitoring log list inquiry screen.

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