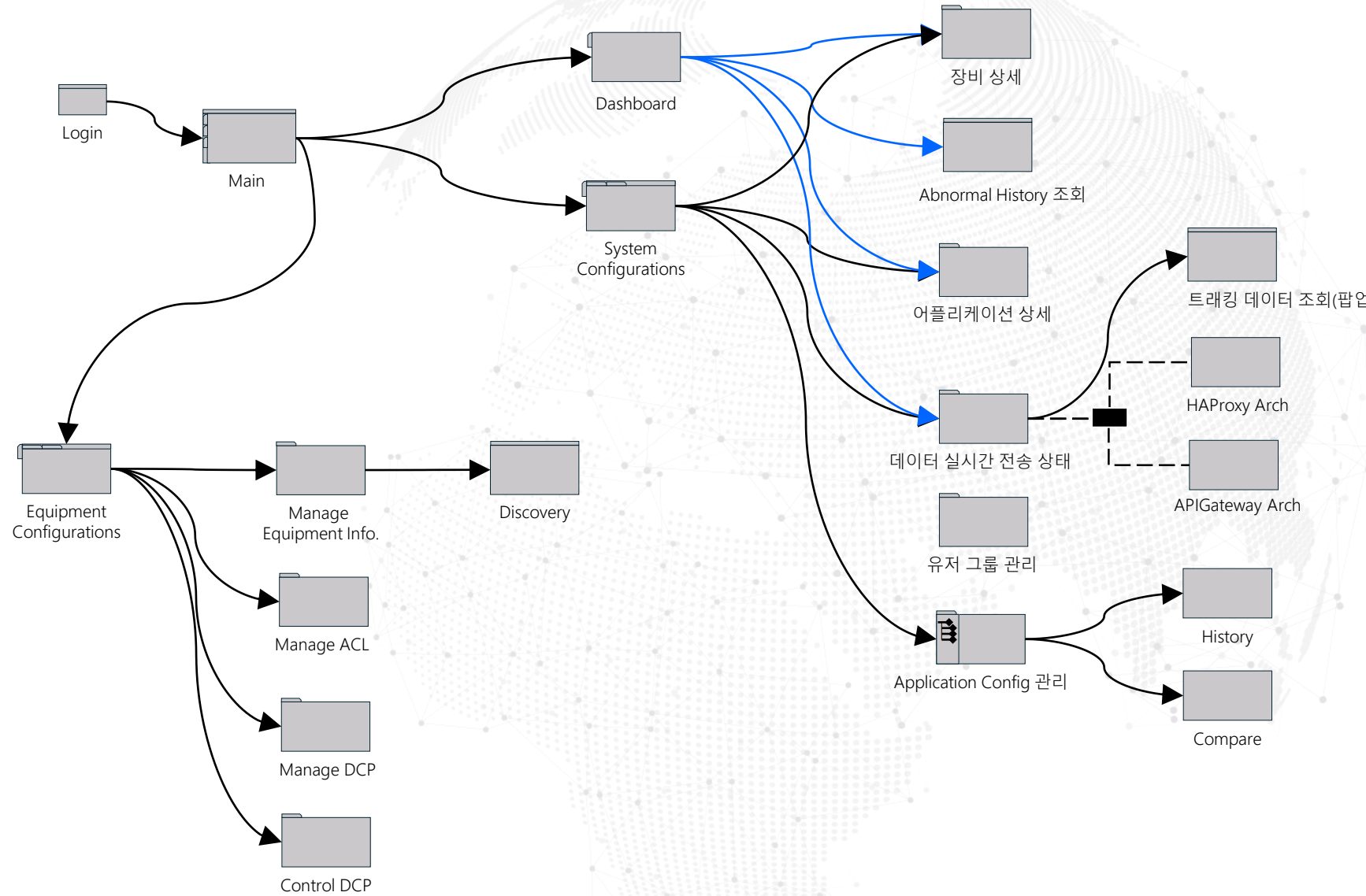


# MAS-UI

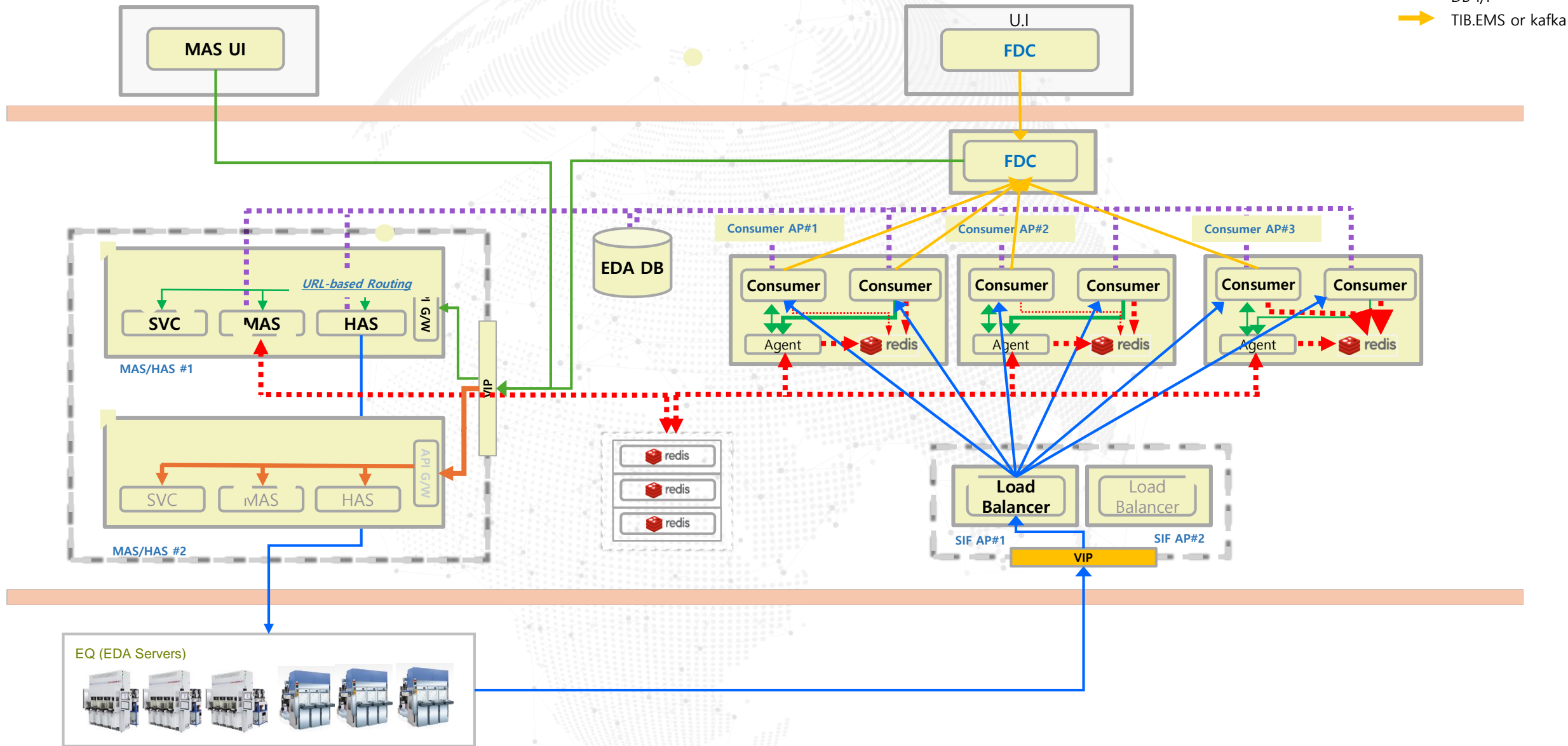
# Introduction

- EDA 전반적인 통합 UI 시스템 필요
- 각 Application 의 상태 체크, 제어 Resource 현황 파악 필요
- 장비 -> Consumer -> 상위 시스템 으로의 Log 파일 분석 필요
- Abnormal History 파악 및 해당 시점의 Data Tracking 필요
- 이슈사항 자동복구 수행 필요

# User Journey Map



# 아키텍처 - Load balancer 기반 시스템 구성



# Dashboard 를 통한 System 및 장비 상태 모니터링

## 장비 EDA 통신간 이슈 모니터링 및 분석 과정 (Manual)

### 1. 모니터링

1. Dashboard 통한 실시간 시스템 이상 모니터링
  - 1.1. 데이터 전송 중단 케이스 확인
  - 1.2. Show Abnormal Data 선택 → 상세 화면으로 이동

### 2. 이슈 대상 확인

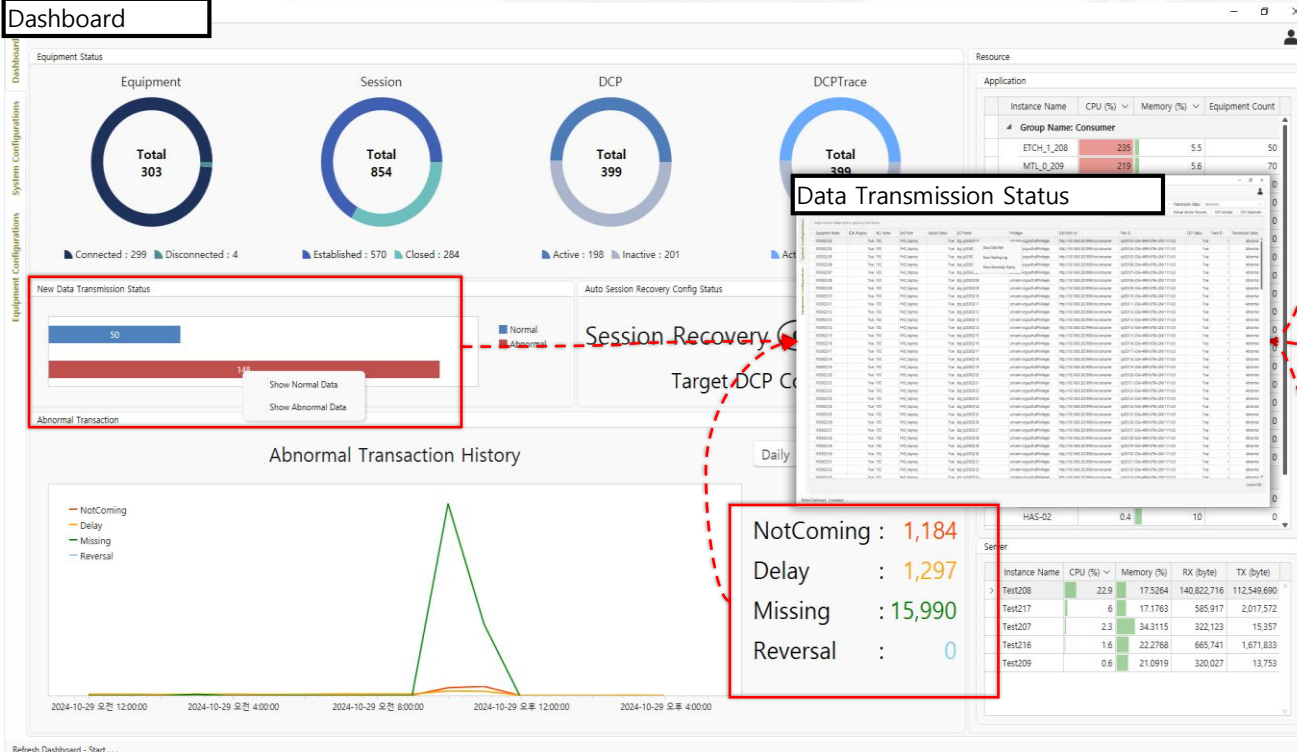
2. Data Transmission 상세 화면 → 비정상 목록 확인
  - 2.1. 특정 장비의 Abnormal 상세 내용 확인

### 3. 상세 분석

3. 상세 데이터 정보 분석
  - 3.1. 'Equipment Data Path' → 데이터 경로 확인
  - 3.2. 'Tracking Log' → 전송 데이터 이력 확인
  - 3.3. 'Abnormal History' → Abnormal 이력 확인

### 4. 조치

4. 상세 분석을 통해 상황에 맞는 조치 프로세스 수행
  - 4.1. Data Transmission Status 화면에서 DCP 재할성 및 Session Recovery 등을 통해 이슈 대상 조치.



Equipment Data Path

Equipment Name	Consumer Name	Endpoint Topic
IP203EQ103	PHO_1_209	TOPIC.M15.EDA

Tracking Log

Not Coming : 0 Delay : 0 Reversal : 0 Missing : 0

Equipment	DCP	Trace	Interval	TS	Collection Time	Recovery Time	Send Time
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549844	2024-10-29 16:49:19.089	2024-10-29 16:49:20.002	2024-10-29 16:49:20.014
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549844	2024-10-29 16:49:20.099	2024-10-29 16:49:20.104	2024-10-29 16:49:20.117
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549844	2024-10-29 16:49:20.186	2024-10-29 16:49:20.211	2024-10-29 16:49:20.233
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549844	2024-10-29 16:49:20.286	2024-10-29 16:49:20.301	2024-10-29 16:49:20.324
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549847	2024-10-29 16:49:20.389	2024-10-29 16:49:20.401	2024-10-29 16:49:20.444
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549848	2024-10-29 16:49:20.480	2024-10-29 16:49:20.501	2024-10-29 16:49:20.543
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549849	2024-10-29 16:49:20.568	2024-10-29 16:49:20.603	2024-10-29 16:49:20.666
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549850	2024-10-29 16:49:20.688	2024-10-29 16:49:20.701	2024-10-29 16:49:20.727
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549851	2024-10-29 16:49:20.786	2024-10-29 16:49:20.802	2024-10-29 16:49:20.829

Abnormal History

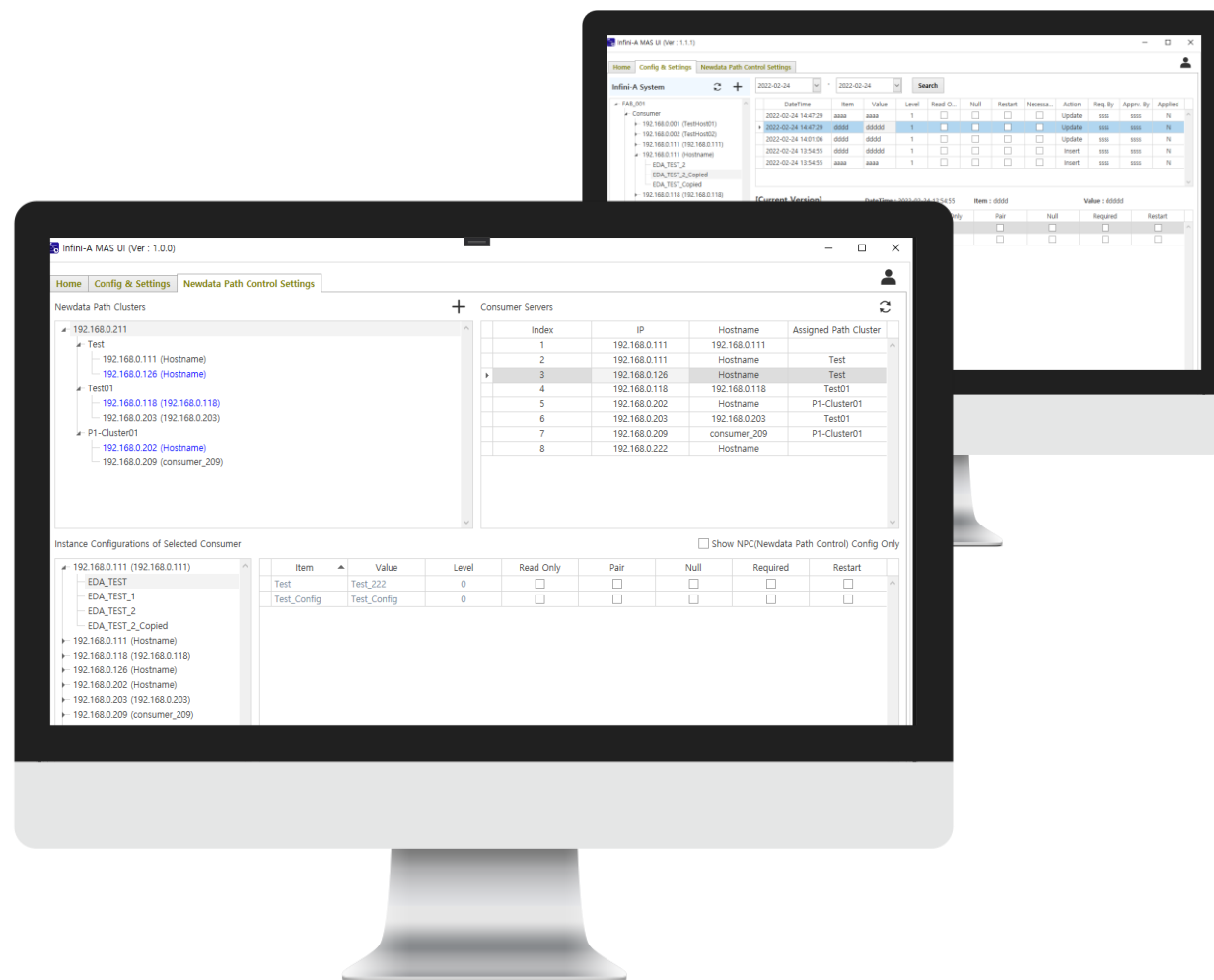
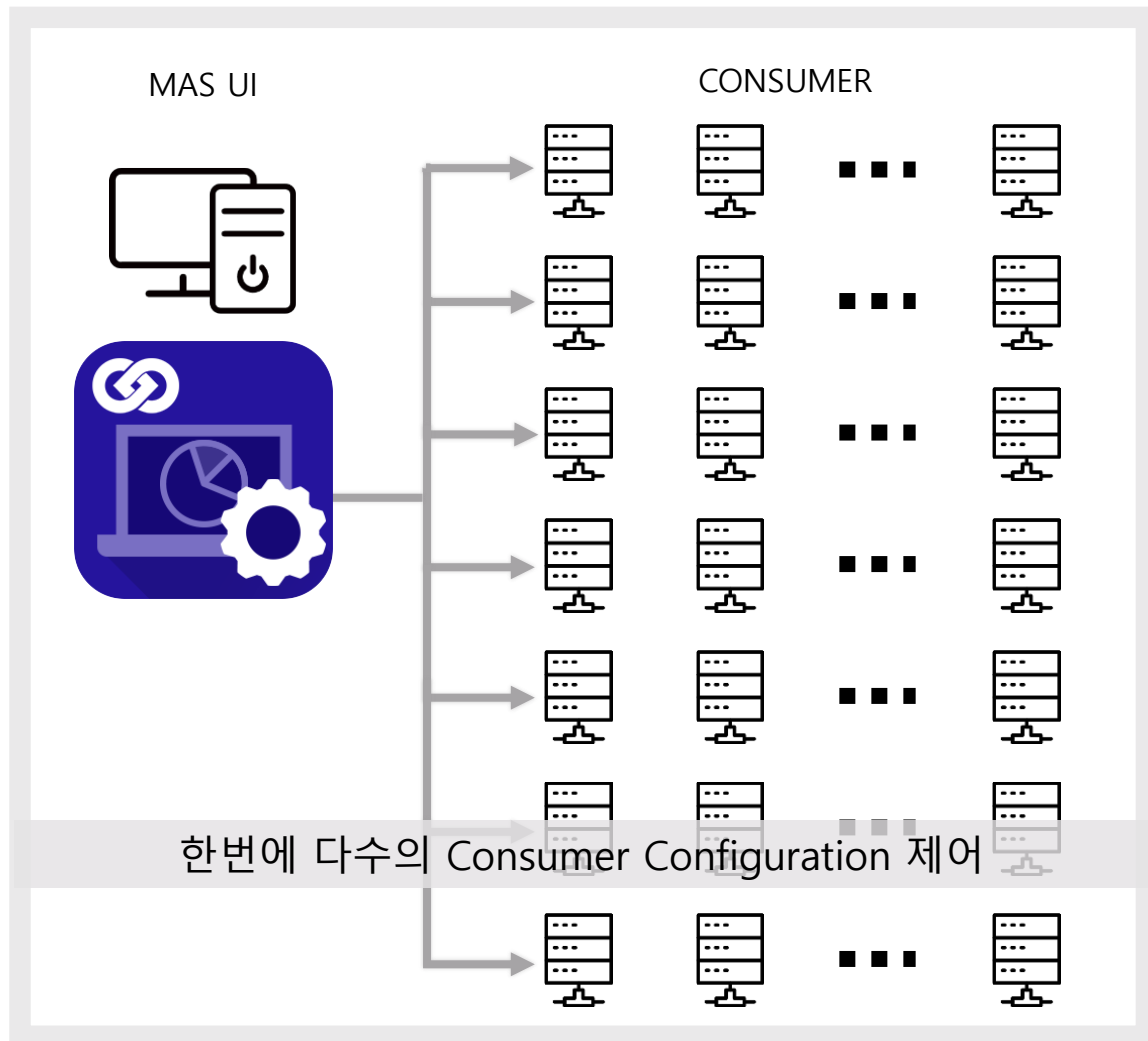
Equipment	DCP	Trace	Interval	TS	Collection Time	Recovery Time	Send Time
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549844	2024-10-29 16:49:19.089	2024-10-29 16:49:20.002	2024-10-29 16:49:20.014
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549844	2024-10-29 16:49:20.099	2024-10-29 16:49:20.104	2024-10-29 16:49:20.117
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549844	2024-10-29 16:49:20.186	2024-10-29 16:49:20.211	2024-10-29 16:49:20.233
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549844	2024-10-29 16:49:20.286	2024-10-29 16:49:20.301	2024-10-29 16:49:20.324
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549847	2024-10-29 16:49:20.389	2024-10-29 16:49:20.401	2024-10-29 16:49:20.444
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549848	2024-10-29 16:49:20.480	2024-10-29 16:49:20.501	2024-10-29 16:49:20.543
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549849	2024-10-29 16:49:20.568	2024-10-29 16:49:20.603	2024-10-29 16:49:20.666
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549850	2024-10-29 16:49:20.688	2024-10-29 16:49:20.701	2024-10-29 16:49:20.727
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549851	2024-10-29 16:49:20.786	2024-10-29 16:49:20.802	2024-10-29 16:49:20.829

Data Transmission Status

Equipment	DCP	Trace	Interval	TS	Collection Time	Recovery Time	Send Time
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549844	2024-10-29 16:49:19.089	2024-10-29 16:49:20.002	2024-10-29 16:49:20.014
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549844	2024-10-29 16:49:20.099	2024-10-29 16:49:20.104	2024-10-29 16:49:20.117
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549844	2024-10-29 16:49:20.186	2024-10-29 16:49:20.211	2024-10-29 16:49:20.233
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549844	2024-10-29 16:49:20.286	2024-10-29 16:49:20.301	2024-10-29 16:49:20.324
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549847	2024-10-29 16:49:20.389	2024-10-29 16:49:20.401	2024-10-29 16:49:20.444
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549848	2024-10-29 16:49:20.480	2024-10-29 16:49:20.501	2024-10-29 16:49:20.543
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549849	2024-10-29 16:49:20.568	2024-10-29 16:49:20.603	2024-10-29 16:49:20.666
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549850	2024-10-29 16:49:20.688	2024-10-29 16:49:20.701	2024-10-29 16:49:20.727
IP203EQ112	IP20312-3334-4999-07	1	0.1	2549851	2024-10-29 16:49:20.786	2024-10-29 16:49:20.802	2024-10-29 16:49:20.829

# 솔루션 통합 Configuration 제어

Infini-A Host 시스템 통합 설정 관리 기능 (Consumer, HAS, MAS 설정 중앙 관리를 위한 U.I 제공)



# Load Balancer & IP Hash를 이용한 Fail-Over 시스템 구성

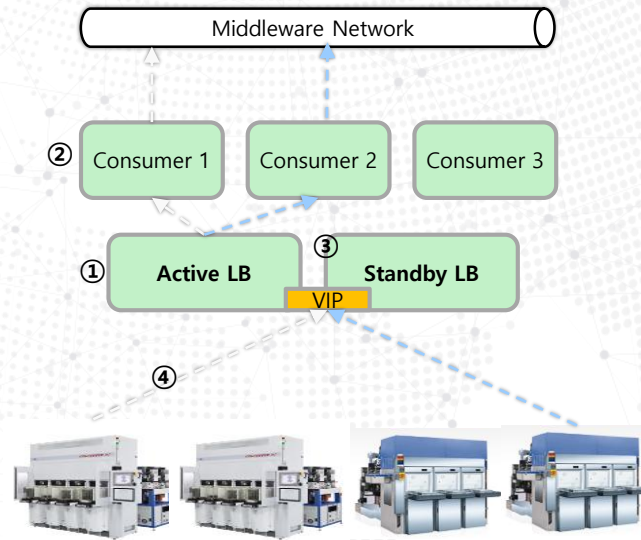
Single Point  
of  
Failure 해결

## ① Load Balancer 배치

- Consumer Failover 지원
- End-Point 통합 관리로 운영 효율성 향상
- Consumer 서버 Scale-out 용이

## ③ Load Balancer 이중화

- Load Balancer 두 대를 Virtual LAN으로 이중화
- 추가 장비 불필요
- 가상 IP 기반 Active-Standby Failover 지원



데이터 순서 보장

## ① Load Balancing 단계 순서 보장

- IP Hash : Source IP 기반 데이터 분배
- 한 장비의 데이터는 하나의 Consumer로 분배
- Consumer로 전송하는 순서 역전 해결

## ② Consumer 내부 처리 순서 보장

- Source IP 기반 데이터 처리 순서 관리
- 수신 순서대로 전송

## ④ 단일 세션 운영

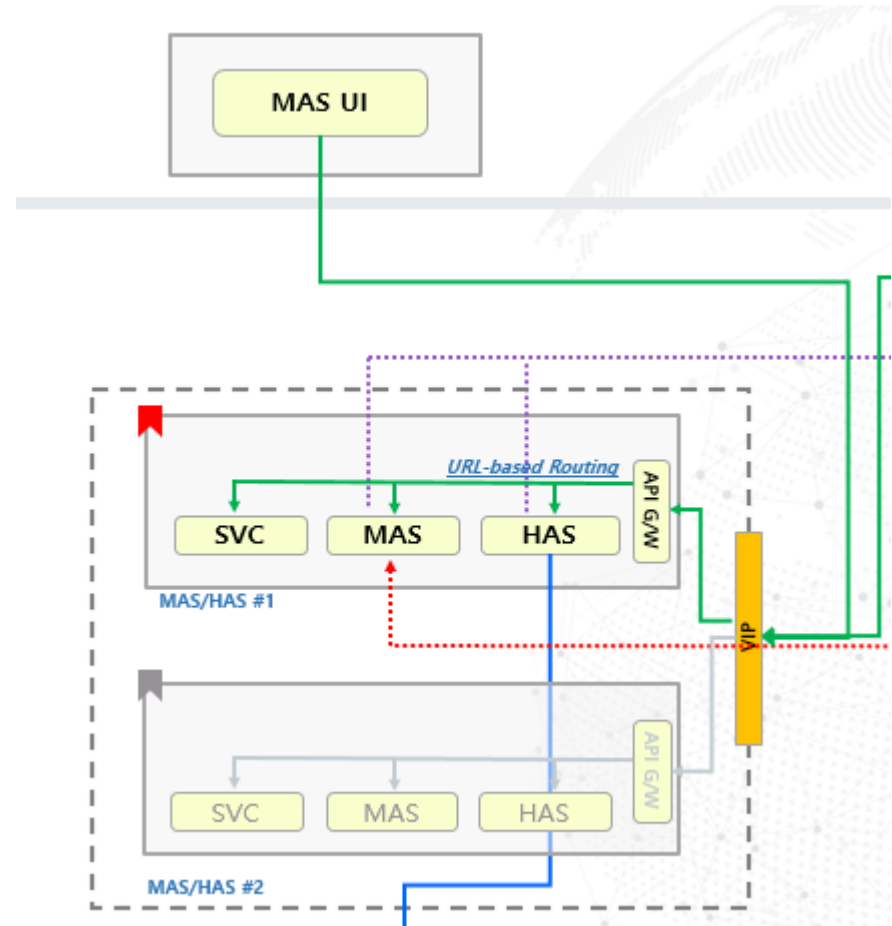
- 현행 이중화 데이터 세션 단일화
- 데이터 중복 전송 가능성 원천 차단

데이터 중복 차단



# Problem Setup

- 기존 통합 UI 가 없어 새로 개발 해야함.
- MAS 와 HAS 와의 통신을 통해 장비 와 Consumer 간 EDA 통신 Monitoring
- UI 는 VIP 통해 MAS 와 HAS 랑 통신



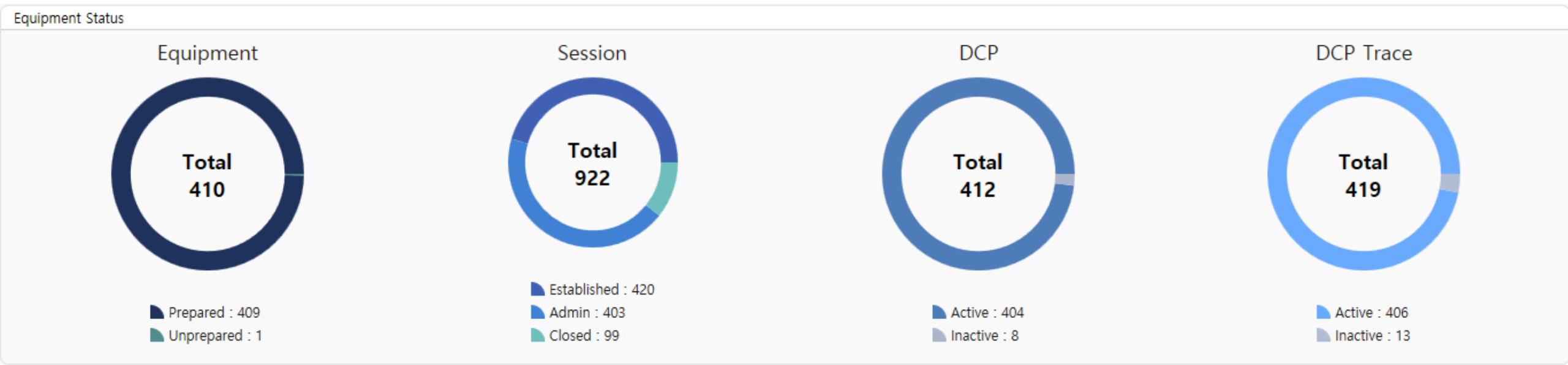


# Scope

- DashBoard 장비 Discovery 현황
- NewData Trasmission 현황
- Auto Session Recovery Config Status
- Abnormal Transaction History
- Application/Server Resource
- 각 Application Control
- Proxy Status , Control
- Application Config 관리
- Data Transmission Tracking
- Abnormal History Search
- User Group Account Management

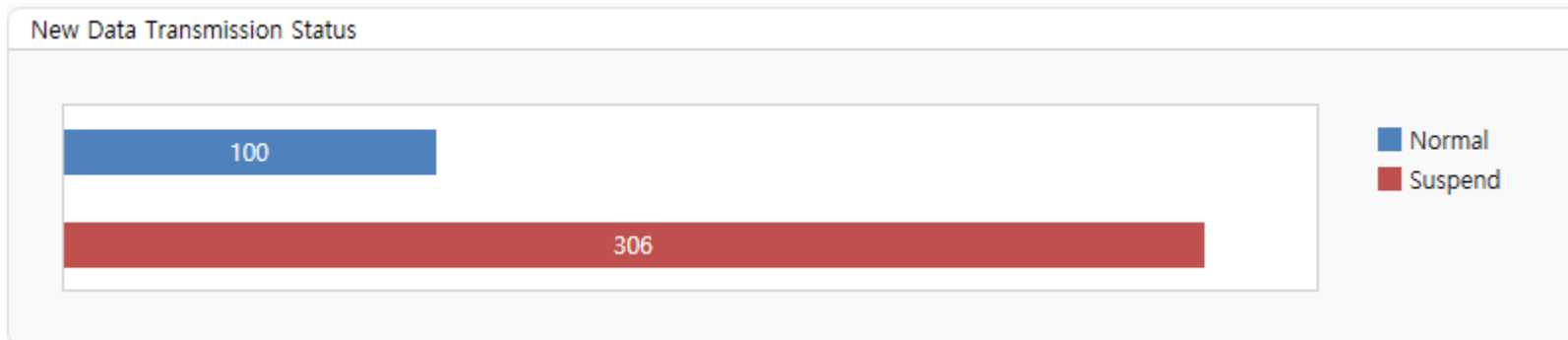
# Scope - DashBoard 장비 Discovery 현황

- DB에 저장된 장비 현황 MAS Server 통해 가져와서 보여줌.



# Scope - NewData Trasmmission 현황

- MAS로 부터 New data 현황 가져와서 보여줌.



# Scope - Auto Session Recovery Config Status

- 라벨 클릭하여 자동복구 할 DCP 저장 후 토글버튼 클릭하여 이상감지 시작.

Auto Session Recovery Config Status

Session  
Recovery

☐ Disabled

Target DCP Count : 1

Auto Session Recovery Config Status

Session  
Recovery

☒ Enabled

Target DCP Count : 1

DCP List				
Equipment Name	ACL Name	Plan ID	DCP Name	DCP Description
IP204EQ172	Admin	005583b1-f709-4ee4...	exception_dcp	
IP204EQ172	FDC	005583b1-f709-4ee4...	exception_dcp	
IP204EQ104	FDC	085bd7bf-3e74-47e7...	2025-07-23 10:53:16	
IP204EQ104	Admin	085bd7bf-3e74-47e7...	2025-07-23 10:53:16	
IP204EQ104	FDC	47371191-d0db-4fb2...	2025-07-15 12:17:36	
IP204EQ104	Admin	47371191-d0db-4fb2...	2025-07-15 12:17:36	
IP204EQ105	FDC	50884978-5d23-472...	nameSpaceDCP	
IP204EQ105	Admin	50884978-5d23-472...	nameSpaceDCP	
IP204EQ105	FDC	7dbd28aa-9051-46f8...	TEST	
IP204EQ105	Admin	7dbd28aa-9051-46f8...	TEST	
IP204EQ105	Admin	87b60390-7faa-4c0d...	Trace-204-105-002	
IP204EQ105	FDC	87b60390-7faa-4c0d...	Trace-204-105-002	
IP204EQ104	FDC	895a3f78-a815-402a...	JH_DCP	
IP204EQ104	Admin	895a3f78-a815-402a...	JH_DCP	
IP204EQ104	Admin	a5545fe8-f966-4891...	3trace_dcp_test_1	
IP204EQ104	FDC	a5545fe8-f966-4891...	3trace_dcp_test_1	
IP204EQ172	FDC	af8f2bef-e440-44ac...	trace_event_exceptio...	
IP204EQ172	Admin	af8f2bef-e440-44ac...	trace_event_exceptio...	
IP204EQ105	FDC	b2dcc1ce-32ea-4eea...	2025-09-01 12:20:09	
IP204EQ105	Admin	b2dcc1ce-32ea-4eea...	2025-09-01 12:20:09	
IP204EQ105	Admin	bacd6393-cb9d-4e1c...	Trace-204-105-001	
IP204EQ105	FDC	bacd6393-cb9d-4e1c...	Trace-204-105-001	
IP204EQ172	Admin	cb43f502-8faf-4148...	1.000param_0.1s	
IP204EQ172	FDC	cb43f502-8faf-4148...	1.000param_0.1s	

Select All DCP

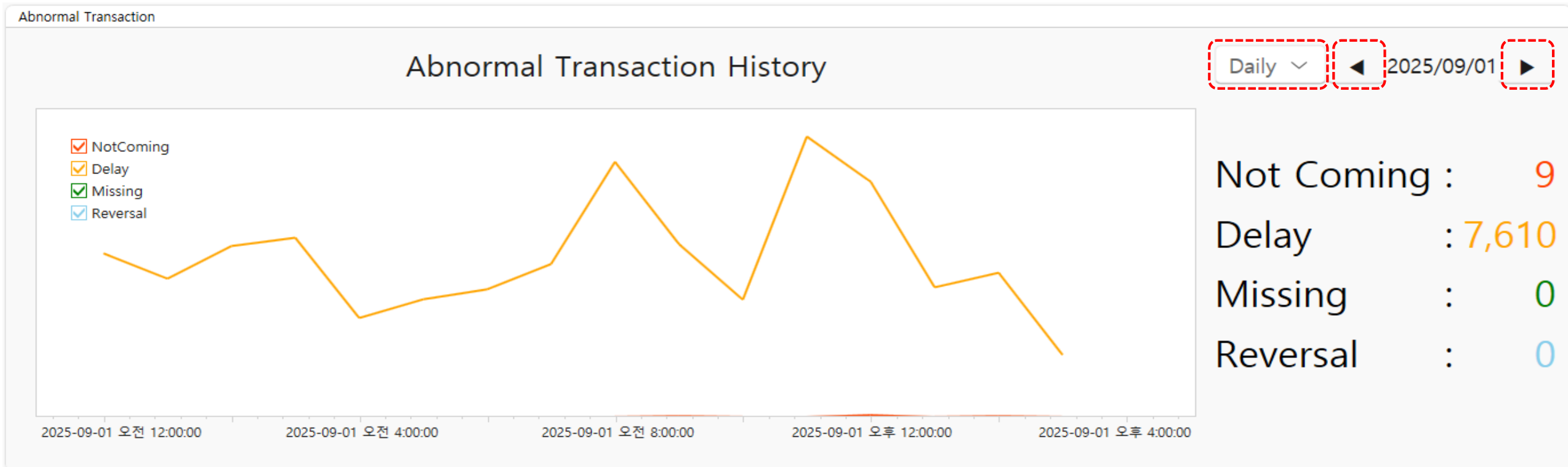
Session Recovery DCP List				
Equipment Name	ACL Name	Plan ID	DCP Name	DCP Description
IP205EQ143	FDC	ip205143-333e-4999...	dcp_ip205EQ143	

Select All DCP Auto Session Recovery Disable ☒ Refresh Save

설정한 DCP 를 이상 감지 하여 자동복구 수행

# Scope - Abnormal Transaction History

- MAS 통해서 해당 날짜의 Abnormal History 를 가져와서 보여준다.
- 버튼 클릭 시 날짜 변경 가능
- Combo Box 로 Daily / Weekly 선택 가능



# Scope - Application/Server Resource

- MAS 통해 Application / Server 의 Resource 현황을 가져와서 보여준다.

Application				
Instance Name	CPU (%)		Memory (%)	Equipment Count
Group Name: Consumer				
PHO_0_207	0.0		3.7	0
NS_0_207	0.0		3.7	0
ETCH_0_207	0.0		3.7	0
CMP_0_207	0.0		3.4	0
CLN_0_207	0.0		3.4	0
PHO_1_209	0.0		3.8	0
NS_1_209	0.0		3.8	0
MTL_0_209	0.0		3.8	0
CMP_1_209	0.0		3.8	0
DIFF_0_209	0.0		3.7	0
MTL_1_208	0.0		0	0
IMP_1_208	0.0		0	0
ETCH_1_208	0.0		0	0
DIFF_1_208	0.0		0	0
CVD_1_208	0.0		0	0
CLN_1_208	0.0		0	0
Group Name: HAS				
HAS-01	0.1		13.9	0
HAS-02	0.1		26.8	0
Group Name: MAS				
MAS-01	3.9		1.2	0
MAS-02	0.1		1.3	0

Server					
Instance Name	CPU (%)		Memory (%)	RX (byte)	TX (byte)
Test216	63.5		21.8	56,552	68,853
Test207	19.1		27.2	10,282,043	37,763,909
Test208	11.4		1.4	7,050	6,055
Test214	8.0		4.9	21,644,266	21,833,479
Test209	2.8		27.3	11,488,025	39,175,012
Test217	1.6		38.5	137,804	204,128

# Scope - 각 Application Control

- MAS 통해서 Application 의 상태를 가져온 뒤 제어하고 싶은 Application 선택 후 제어.

					Auto Search : <input type="checkbox"/> Off		Search
HAS					Start Stop Restart		
Drag a column header here to group by that column							Q
Instance ^	Alive Status	Active Status	IP	Port			
HAS-01			192.168.0.216	8700			
HAS-02			192.168.0.217	8700			
MAS					Start Stop Restart		
Drag a column header here to group by that column							Q
Instance ^	Alive Status	Active Status	IP	Port			
MAS-01			192.168.0.216	6000			
MAS-02			192.168.0.217	6000			
Bridge					Start Stop Restart		
Drag a column header here to group by that column							Q
Instance ^	Alive Status	Active Status	IP				
BRIDGE-01			192.168.0.216				
BRIDGE-02			192.168.0.217				
Consumer					Start Stop Restart		
Drag a column header here to group by that column							
Instance ^	Alive Status	Active Status	IP	Port	Equipment Count	Select	
CLN_0_207			192.168.0.207	8905	0	<input type="checkbox"/>	
CLN_1_208			192.168.0.208		0	<input type="checkbox"/>	
CMP_0_207			192.168.0.207	8904	0	<input type="checkbox"/>	
CMP_1_209			192.168.0.209	8905	0	<input type="checkbox"/>	
CVD_0_207			192.168.0.207	8903	50	<input type="checkbox"/>	
CVD_1_208			192.168.0.208		0	<input type="checkbox"/>	
DIFF_0_209			192.168.0.209	8901	0	<input type="checkbox"/>	
DIFF_1_208			192.168.0.208		0	<input type="checkbox"/>	
ETCH_0_207			192.168.0.207	8901	0	<input type="checkbox"/>	
ETCH_1_208			192.168.0.208		0	<input type="checkbox"/>	
IMP_0_209			192.168.0.209	8902	50	<input type="checkbox"/>	
IMP_1_208			192.168.0.208		0	<input type="checkbox"/>	
MTL_0_209			192.168.0.209	8903	0	<input type="checkbox"/>	
MTL_1_208			192.168.0.208		0	<input type="checkbox"/>	
NS_0_207			192.168.0.207	8906	0	<input type="checkbox"/>	
NS_1_209			192.168.0.209	8906	0	<input type="checkbox"/>	
PHO_0_207			192.168.0.207	8902	0	<input type="checkbox"/>	
PHO_1_209			192.168.0.209	8904	0	<input type="checkbox"/>	



# Scope - Proxy Status , Control

- MAS 통해 Proxy 의 Status 정보 가져온다. 우 클릭 하여 Proxy Enable/Disable 하여 제어 한다.

Infini-A Proxy

↻ Add

← http://192.168.0.219:5500/mas : FAB\_001

192.168.0.202 : Load Balancer

192.168.0.214 : Consumer1

192.168.0.215 : Consumer2

192.168.0.219 : APIGateWay

192.168.0.216 : HAS/MAS1

192.168.0.217 : HAS/MAS2

IsMaster

Name

IP

Type

Group

Consumer2

192.168.0.215

Server

HAProxy

Proxy Status

No Refresh

Service Name	IP Port	Status	Current Sessions	Max Sessions	Effective Weight	Check Last status	Description
Group Name : CLN							
CLN_0_207	192.168.0.207:8905	UP	0	0	100	L4OK	check passed on layer 4, no upper layers testing enabled
CLN_1_208	192.168.0.208:8901	DOWN	0	0	32	L4CON	layer 1-4 connection problem, for example "Connection refused" (tcp rst) or "No route to host" (icmp)
Total	CLN Total Status	UP	0	0	100		
Group Name : CMP							
CMP_0_207	192.168.0.207:8904	UP	0	0	100	L4OK	check passed on layer 4, no upper layers testing enabled
CMP_1_209	192.168.0.209:8905	UP	0	0	100	L4OK	check passed on layer 4, no upper layers testing enabled
Total	CMP Total Status	UP	0	0	200		
Group Name : CVD							
CVD_0_207	192.168.0.207:8903	UP	5	51	100	L4OK	check passed on layer 4, no upper layers testing enabled
CVD_1_208	192.168.0.208:8902	DOWN	0	138	32	L4CON	layer 1-4 connection problem, for example "Connection refused" (tcp rst) or "No route to host" (icmp)
Total	CVD Total Status	UP	5	166	100		
Group Name : DIFF							
DIFF_0_209	192.168.0.209:8901	UP	0	0	100	L4OK	check passed on layer 4, no upper layers testing enabled
DIFF_1_208	192.168.0.208:8904	DOWN	0	0	32	L4CON	layer 1-4 connection problem, for example "Connection refused" (tcp rst) or "No route to host" (icmp)
Total	DIFF Total Status	UP	0	0	100		
Group Name : ETCH							
ETCH_0_207	192.168.0.207:8901	UP	0	0	100	L4OK	check passed on layer 4, no upper layers testing enabled
ETCH_1_208	192.168.0.208:8903	DOWN	0	0	32	L4CON	layer 1-4 connection problem, for example "Connection refused" (tcp rst) or "No route to host" (icmp)
Total	ETCH Total Status	UP	0	0	100		
Group Name : IMP							
IMP_0_209	192.168.0.209:8902	UP	3	50	100	L4OK	check passed on layer 4, no upper layers testing enabled
IMP_1_208	192.168.0.208:8905	DOWN	0	30	32	L4CON	layer 1-4 connection problem, for example "Connection refused" (tcp rst) or "No route to host" (icmp)
Total	IMP Total Status	UP	3	50	100		
Group Name : MTL							
MTL_0_209	192.168.0.209:8903	UP	0	0	100	L4OK	check passed on layer 4, no upper layers testing enabled
MTL_1_208	192.168.0.208:8906	DOWN	0	0	25	L4CON	layer 1-4 connection problem, for example "Connection refused" (tcp rst) or "No route to host" (icmp)
Total	MTL Total Status	UP	0	0	100		

# Scope - Application Config 관리

- MAS 통해서 Application 의 Config 를 가져온다.
- Config Delete/Add/Edit 가능 하며 Deploy 를 통해 Config 를 각 Application 에 적용 가능하다.

Infini-A System

FAB\_001

Consumer

CLN\_0\_207

CLN\_1\_208

CMP\_0\_207

CMP\_1\_209

CVD\_0\_207

CVD\_1\_208

DIFF\_0\_209

DIFF\_1\_208

ETCH\_0\_207

ETCH\_1\_208

IMP\_0\_209

IMP\_1\_208

MTL\_0\_209

MTL\_1\_208

NS\_0\_207

NS\_1\_209

PHO\_0\_207

PHO\_1\_209

HAS

HAS-01

HAS-02

Deployed at : 2025-08-27 12:16:27

Deployed by : Admin

Deployed : Yes

Deploy

Delete Config

Add Config

Refresh

No Refresh

Download

Item	Value	Null	Restart	Saved Time	Request Type	Request Time	Request By
abnormal.check.in...	1000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2025-07-08 17:09:...	DC	2025-08-27 12:16:...	Admin
consumer.instanc...	CMP_0_207	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
customer.transfor...	false	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
dcp.delay.standar...	10	<input type="checkbox"/>	<input type="checkbox"/>	2025-07-08 14:45:...	DC	2025-08-27 12:16:...	Admin
dcp.stop.standard...	100	<input type="checkbox"/>	<input type="checkbox"/>	2025-07-07 18:53:...	DC	2025-08-27 12:16:...	Admin
ems.connectionPo...	5	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-07-08 14:49:...	DC	2025-08-27 12:16:...	Admin
ems.deliveryMode	RELIABLE	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
ems.topic.base	TOPIC.M15.EDA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
ems.topic.comma...	EDAALL_NEWDATA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
ems.topic.comma...	EDAALL_NEWDATA	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
ems.topic.comma...	EDALFDC_NEWDA...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
ems.url	tcp://192.168.0.21...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
ems.user.name	admin	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
ems.user.password		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
equipmentQueue....	50	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
equipmentQueue....	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
eureka.client.enab...	false	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
internal.redis.adr...	192.168.0.207	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
internal.redis.port	6379	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
jmx.port	1234	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
logging.config	config/log-config...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
logging.equipmen...	IP203EQ105_Alias...	<input type="checkbox"/>	<input type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
logging.mode	ALL	<input type="checkbox"/>	<input type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
missing.check.inte...	5000	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	2025-07-07 18:46:...	DC	2025-08-27 12:16:...	Admin
monitoring.interval	5000	<input type="checkbox"/>	<input type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
mybatis.mapper-l...	mapper/postgre/*...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
newdata.verificati...	true	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
orderAssurance.q...	on	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
send.queue	on	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin
server.address	192.168.0.207	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-19 10:48:...	DC	2025-08-27 12:16:...	Admin
server.port	8904	<input type="checkbox"/>	<input checked="" type="checkbox"/>	2025-06-09 17:26:...	DC	2025-08-27 12:16:...	Admin

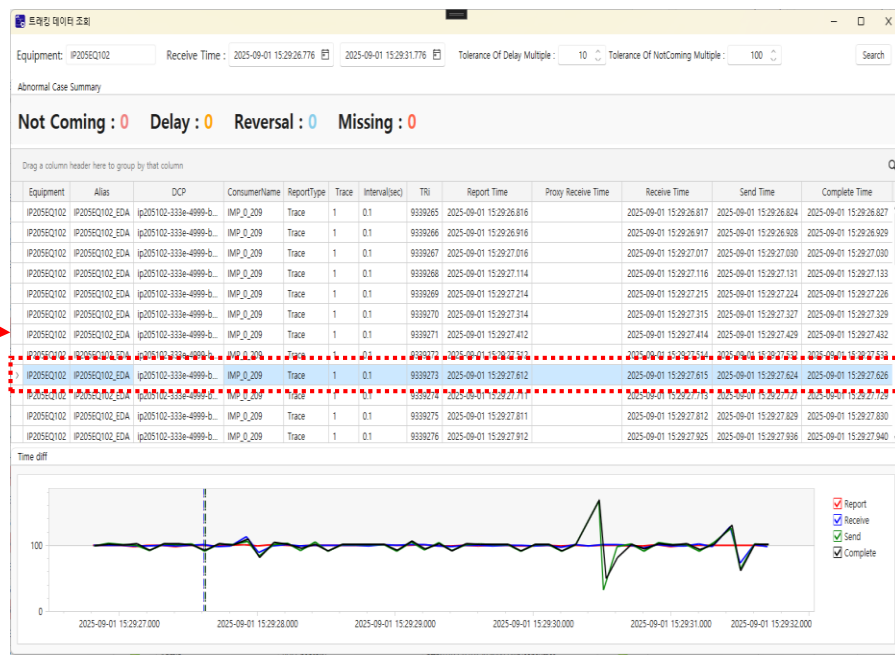
Save

# Scope - Data Transmission Tracking

- MAS 통해 각 검색조건으로 장비 정보를 가져온다.

Equipment :  Progress Status :  Session Status :  DCP Status :  EQ Connection Status :  Transmission Status :

Equipment Alias	Total Status	Equipment Name	EQP Stat...	ACL Name	End Point	End Point Url	Session Sta...	Plan ID	DCP Name	DCP Stat...	Trace ID	EQ Connection...	Transmissio...
Equipment Alias: IP204EQ164_EDA													Count=2
EQ Disc IP204EQ164				FDC	MTL_haproxy	http://192.168.0.202:9994/ws/consumer		ip204164-333e-4999-b798-c2...	dcp_ip204EQ...		1		Suspend
Equipment Alias: IP204EQ165_EDA													Count=2
DCP Un IP204EQ165				Admin	MTL_haproxy	http://192.168.0.202:9994/ws/consumer							
EQ Disc IP204EQ165				FDC	MTL_haproxy	http://192.168.0.202:9994/ws/consumer		ip204165-333e-4999-b798-c2...	dcp_ip204EQ...		1		Suspend



TrackingDataMessageView

Equipment: IP205EQ102 DCP: ip205102-333e-4999-b798-c2fa1111c33 ConsumerName: IMP\_0\_209 ReportType: Trace Interval(sec): 0.1 TR1: 9339270 Report Time: 2025-09-01 15:29:27.314

Receive Log (xml)

```
<?xml version="1.0" encoding="UTF-8"?>
<Envelope xmlns:s="http://www.w3.org/2003/05/soap-envelope">
  <s:Header>
    ch:SynchHeader xmlns:urn="urn:semi-org:xsd.E128.V0706.xms" xmlns:
      <From>IP205EQ102</From>
      <To>DCP</To>
      <SessionId>21E5014wUJ43cRdW4Kyp5U-</SessionId>
      </s:Header>
    <s:Body xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns:
      <NewDataNotification xmlns:urn="urn:semi-org:xsd.E134.V0710.DCM">
        <DCR planId="ip205102-333e-4999-b798-c2fa1111c33" reportTime=
          <traceReport traceId="1" reportTime="2024-12-03T12:48:44.171+09:00">
            <TR id="9339270" collectionTime="2025-09-01T15:29:27.314">
              <PSet xmlns:urn="urn:semi-org:xsd.E138.V0709.ccs">
                <S1Test Str Val 49</S1>
                <F4>73.333336</F4>
                <F4>96.666664</F4>
                <F4>92.666664</F4>
                <F4>48.000000</F4>
                <S1Test Str Val 34</S1>
                <S1Test Str Val 66</S1>
                <NoValue reasonCode="ValueNotAvailable">
                  <DescriptionNotAvail</Description>
                </NoValue>
              </PSet>
            </traceReport>
          </DCR>
        </NewDataNotification>
      </s:Body>
    </Envelope>
```

Send Log (json)

```
{
  "notType": "NewData",
  "eqID": "IP205EQ102",
  "alias": "IP205EQ102_EDA",
  "planId": "ip205102-333e-4999-b798-c2fa1111c33",
  "reportTime": "2024-12-03T12:48:44.171+09:00",
  "consumerTimestamp": "2025-09-01T15:29:27.325+09:00",
  "consumerTimestamp": "2025-09-01T15:29:27.327+09:00",
  "reports": [
    {
      "type": "Trace",
      "interval": "0.1",
      "traceId": "1",
      "TR1": "9339270",
      "planId": "ip205102-333e-4999-b798-c2fa1111c33",
      "reports": [
        {
          "vID": "tracksys404/HotPlate/WFC300/WFC300CurState",
          "val": "Test Str Val 49"
        },
        {
          "vID": "tracksys404/HotPlate/WFC300/WFC300CurState",
          "val": "73.333336"
        }
      ]
    }
  ]
}
```

Compare Receive And Send vID: 04/HotPlate/WFC300/TempSetpoint Search

TR1	Collection TL	Receive	Send	Consumer RTL	Consumer STL
93	2024-12-03	"77.000000"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"63.666668"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"18.000000"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"63.000000"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"26.000000"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"18.000000"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"47.666668"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"19.000000"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"35.666668"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"72.666664"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"75.666664"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"65.000000"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"31.333334"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"23.000000"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"83.666664"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"20.333334"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"5.666667"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"5.666667"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314
93	2024-12-03	"48.000000"	null	2025-09-01 15:29:27.314	2025-09-01 15:29:27.314

Show Data Path

Show Abnormality History

Tracking Log (Popup)

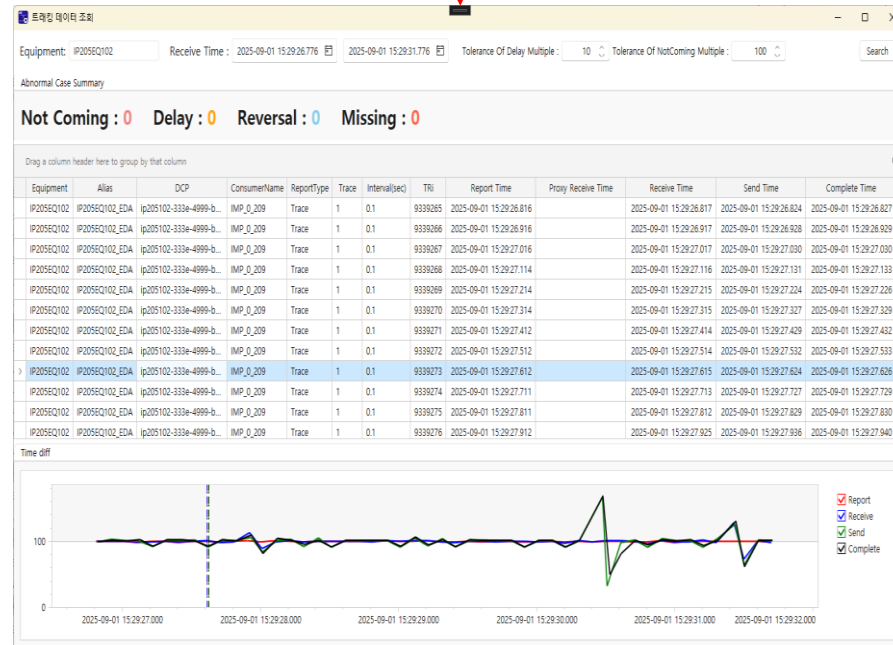
Operation Log (Popup)

SessionRecovery History (Popup)

# Scope - Abnormal History Search

- 검색 조건에 맞게 MAS 에서 Abnormal History 를 검색하여 보여준다.

Abnormal History						
Equipment :		Event Time :	2025-08-29 17:00:00.000	~	2025-08-29 18:00:00.000	이상징후 유형 : NotComing
						Search
발생시간	Equipment	Alias	DCP	Trace	TRI	이상징후 유형
2025-08-29 17:00:06.295	IP206EQ188	IP206EQ188_EDA	ip206188-333e-4999-b798-c2fa11111c33	1	6827200	NotComing
2025-08-29 17:00:06.818	IP206EQ188	IP206EQ188_EDA	ip206188-333e-4999-b798-c2fa11111c33	1	6827205	NotComing
2025-08-29 17:00:07.167	IP206EQ188	IP206EQ188_EDA	ip206188-333e-4999-b798-c2fa11111c33	1	6827208	NotComing
2025-08-29 17:00:13.682	IP206EQ188	IP206EQ188_EDA	ip206188-333e-4999-b798-c2fa11111c33	1	6827272	NotComing



# Scope - User Group Account Management

- User Management 에서 유저 생성 후 Group Management 에서 각 그룹 매칭 하여 유저를 넣어준다.

Group Management

User Management

Username	User ID	Is Loginable	Remove
TESTUser	TESTUser		
test1	test1		
test2	test2		
test	test		
test3	test3		
test_QA	test_QA		
test4	test4		
JH	JH		

Group Management

User Management

Group List

Refresh All

+

Search

SR

TestSR

UI

UIGroup1

UIGroup2

EQ

TestEQ

EQ

User : TESTUser

User Account Management

Add

Remove

Username	User ID	Is Loginable
TESTUser	TESTUser	<input checked="" type="checkbox"/>

Permissions Management

Session Recovery Permission

Only Use Auto Session Recovery

Add

Remove

Equipment Name	Alias	Name	Own Privileges	Session Name
EQ114Local	EQ114Local_change1	TEST_1	urn:semi-org:auth:allPrivileges	
EQ114Local	EQ114Local_change1	ManageAnyDCP	urn:semi-org:priv:ManageAnyDCP	
Equipment_211119	Equipment_211119_alias	ACL_1	urn:semi-org:auth:allPrivileges	
IP203EQ102	IP203EQ102_EDA	Admin	urn:semi-org:auth:securityAdminPrivileges urn:semi-org:priv:ManageOnlyAuthoredDCPs urn:semi-org:priv:ManageAnyDCP urn:semi-org:auth:allPrivileges	Admin_session

Save

# Scope – Equipment & Consumer

- 장비 Discovery 와 Consumer 를 등록한다.

Infiniti-A MAS (Ver : 2.1.0.0)

Equipment & ConsumersSecurity AdminDCP Management

Use Manual HAS URL☐http://IP:PortLog

Refresh All

Equipment

Equipment URL *	Equipment Alias *	Equipment Name *	Equipment Description	Equipment Maker	Equipment Model	Session Manager URL *	Security Admin URL *	Metadata URL *	Data Collection URL *
http://192.168.0.111:8430/ws...	EQ111-Local-01_EDA	EQ111-Local-01	EQ111-Local-01		VIGUS	http://192.168.0.111:9000/ws...	http://192.168.0.111:9000/ws...	http://192.168.0.111:9000/ws...	http://192.168.0.111:9000/ws/...
http://192.168.0.114:8430/ws...	EQ114Local_change1	EQ114Local	EQ114Local			http://192.168.0.114:9000/ws...	http://192.168.0.114:9000/ws...	http://192.168.0.114:9000/ws...	http://192.168.0.114:9000/ws/...
http://192.168.0.204:8430	EQ204-plus-1-alias	EQ204-plus-1	INTEGRATOR			http://192.168.0.204:19000/w...	http://192.168.0.204:19000/w...	http://192.168.0.204:19000/w...	http://192.168.0.204:19000/w...
http://192.168.0.204:8430/ws...	EquipmentPlus01_EDA	EquipmentPlus01	EquipmentPlus01_EDA			http://192.168.0.204:19000/w...	http://192.168.0.204:19000/w...	http://192.168.0.204:19000/w...	http://192.168.0.204:19000/w...
http://192.168.0.204:8430/ws...	EquipmentPlus02_EDA	EquipmentPlus02	INTEGRATOR			http://192.168.0.204:19000/w...	http://192.168.0.204:19000/w...	http://192.168.0.204:19000/w...	http://192.168.0.204:19000/w...
http://192.168.0.126:19000/w...	Equipment_211119_alias	Equipment_211119	Equipment_211119			http://192.168.0.126:19000/w...	http://192.168.0.126:19000/w...	http://192.168.0.126:19000/w...	http://192.168.0.126:19000/w...
http://192.168.0.203:17922	IP001EQ001_EDA	IP001EQ001	INTEGRATOR			http://192.168.0.203:17922/E...	http://192.168.0.203:17922/E...	http://192.168.0.203:17922/E...	http://192.168.0.203:17922/E...
http://192.168.0.203:17012	IP203EQ101_EDA	IP203EQ101	INTEGRATOR		VIGUS	http://192.168.0.203:17012/E...	http://192.168.0.203:17012/E...	http://192.168.0.203:17012/E...	http://192.168.0.203:17012/E...
http://192.168.0.203:17022	IP203EQ102_EDA	IP203EQ102	INTEGRATOR			http://192.168.0.203:17022/E...	http://192.168.0.203:17022/E...	http://192.168.0.203:17022/E...	http://192.168.0.203:17022/E...
http://192.168.0.203:17032	IP203EQ103_EDA	IP203EQ103	INTEGRATOR			http://192.168.0.203:17032/E...	http://192.168.0.203:17032/E...	http://192.168.0.203:17032/E...	http://192.168.0.203:17032/E...
http://192.168.0.203:17042	IP203EQ104_EDA	IP203EQ104	INTEGRATOR			http://192.168.0.203:17042/E...	http://192.168.0.203:17042/E...	http://192.168.0.203:17042/E...	http://192.168.0.203:17042/E...
http://192.168.0.203:17052	IP203EQ105_EDA	IP203EQ105	INTEGRATOR			http://192.168.0.203:17052/E...	http://192.168.0.203:17052/E...	http://192.168.0.203:17052/E...	http://192.168.0.203:17052/E...
http://192.168.0.203:17062	IP203EQ106_EDA	IP203EQ106	INTEGRATOR			http://192.168.0.203:17062/E...	http://192.168.0.203:17062/E...	http://192.168.0.203:17062/E...	http://192.168.0.203:17062/E...

Interface DiscoveryDelete

Consumer

Name *	Location *	Description
TEST_208-8902-Consumer	http://192.168.0.208:8902/ws/consumer	
endpoint_plus01	http://192.168.0.114:9876	plus01
test_consumer03	http://192.0.168.132:9991/ws/consumer	test consumer01 insert
test_consumer04	http://192.0.168.132:9992/ws/consumer	test consumer02 insert
test_consumer05	http://192.0.168.132:9993/ws/consumer	test consumer01 insert
test_consumer06	http://192.0.168.132:9994/ws/consumer	test consumer02 insert
test_consumer07	http://192.0.168.132:9995/ws/consumer	test consumer01 insert
test_consumer08	http://192.0.168.132:9996/ws/consumer	test consumer02 insert
test_endpoint_name01	http://192.168.0.132:7777/wa/consumer	test_endpoint_description01
test_endpoint_name02	http://192.168.0.132:8888/wa/consumer	
test_endpoint_name03	http://192.168.0.132:1111/wa/consumer	test_endpoint_description01
test_endpoint_name04	http://192.168.0.132:2222/wa/consumer	
test_endpoint_name05	http://192.168.0.132:2111/wa/consumer	test_endpoint_description01

DeleteSave

Equipment Group

Groups

Equipments of

Add To GroupRemove

Complete.Theme

# Scope – Security Admin

- EDA 에 필요한 Admin Session 과 ACL , Session 을 정의 하고 Establish 한다.

Infini-A MAS (Ver : 2.1.0.0)

Equipment & Consumers Security Admin DCP Management

Use Manual HAS URL ☐ http://IP:Port Log Refresh All

### Equipment List

Equipment Alias : IP204EQ101\_EDA

Session ID 687de780-0000-1000-0000-a1bb2c540a5f

Modify ☐ Sync as Modified Session ID

SecurityAdmin ACL Admin

Consumer ETCH\_haproxy

Establish Session Close Session Session Ping

### ACL Management

Get ACL Add Role Add Principal Delete ACL

ID	Type	Privileges
----	------	------------

### Session Management

Refresh Establish Session Close Session

Session Count 0 / Max Session Count : 0 Apply

State	ACL	Session Name	Description	Session ID	Consumer	Consumer Url	Max Active DCP Count
-------	-----	--------------	-------------	------------	----------	--------------	----------------------

### Consumer Data Session Chart

Connected Closed

Consumer	Connected	Closed
MTL_haproxy	110	0
test_endpoint_name03	130	0
CVD_haproxy	10	5
test_endpoint_name07	5	0
test_consumer05	0	0
test_consumer03	5	0
CLN_haproxy	0	0
CMP_haproxy	80	0

Reload

Complete. Theme

Dashboard System Configurations Equipment Configurations

Equipment List

Name	Value
Name	IP204EQ101
Alias	IP204EQ101_EDA
Description	INTEGRATOR
Discovery Url	http://192.168.0.204:17012
Session Manager Url	http://192.168.0.204:1701...
Security Admin Url	http://192.168.0.204:1701...
Metadata Manager Url	http://192.168.0.204:1701...
DataCollection Manager Url	http://192.168.0.204:1701...
Maker	
Model	MGUIS



# Scope - User Group Account Management

- EDA 에 필요한 DCP 를 정의한다.

Infini-A MAS (Ver : 1.0.1.0)

Dashboard  
System Configurations  
Equipment Configurations

Equipment & Consumers Security Admin DCP Management

Refresh

121

Name

- IP203EQ121\_EDA
- IP204EQ121\_EDA
- IP205EQ121\_EDA
  - Admin
  - FDC
  - LFDC
    - [0] dcp\_ip20...
    - [0] EventDC...
    - [0] hynixcon...
    - [0] hynixcon...
    - [0] hynixcon...
    - [0] IP204EQ...
    - [0] ParamEv...
    - [0] testDCP...
    - [0] testDCP...
    - [0] testDCP...

Search

Equipment...	IP205EQ121	
Equipment...	IP205EQ12...	
Session Ma...	http://192...	
Security Ad...	http://192...	
Metadata M	http://192	

Metadata - [ IP205EQ121\_EDA ]

Parameter Event Exception Tree

Sourc...	Param...	Descri...	Type...	Type...	Unit	SECS...	SECS...	SEMI...	Is Tra...
tracksy...	Hardw...	Provid...	String...	S		1038	SV		TRANS...
tracksy...	Proces...	State i...	String...	S					UNRES...
tracksy...	Proces...	State i...	String...	S					UNRES...
tracksy...	Contr...	State I...	String...	S					UNRES...
tracksy...	Contr...	State I...	String...	S					UNRES...
tracksy...	Proces...	Proces...	Proces...	Enume...		1000	SV		UNRES...
tracksy...	Previo...	Previo...	Proces...	Enume...		1001	SV		UNRES...
tracksy...	Contr...	Equip...	Contro...	Enume...		1002	SV		UNRES...
tracksy...	Clock	Curren...	dateTi...	D		1003	SV		UNRES...
tracksy...	PPCha...	PPID o...	String...	S		1004	DV		TRANS...
tracksy...	PPCha...	Action...	PPCha...	Enume...		1005	DV		TRANS...
tracksy...	PPExe...	PPID(s)...	String...	S		1006	SV		UNRES...
tracksy...	PPFor...	Indicat...	PPFor...	Enume...		1007	SV		UNRES...
tracksy...	PPError	Inform...	String...	S		1008	SV		UNRES...
tracksy...	Opera...	Comm...	String...	S		1009	DV		TRANS...
tracksy...	Equip...	SECS I...	String80	S		1010	DV		TRANS...
tracksy...	EDAEq...	Refere...	Param...	Struct...			DV		TRANS...
tracksy...	Establi...	Equip...	int	I_4	s				
tracksy...	TimeF...	The se...	TimeF...	Enume...					
tracksy...	PortSt...	List of...	PortSt...	ArrayT...		1011	SV		UNRES...
tracksy...	PortTr...	Curren...	PortTr...	ArrayT...		1012	SV		UNRES...

Min Normal Max

Search

Description	Previous process s...	
Is Transient	UNRESTRICTED	
Parameter Name	PreviousProcessSt...	
SECS Var Class	SV	
SECS VID	1001	
SEMI Object Name		
Source ID	tracksys404	
Type Definition	EnumerationType	
Type Name	ProcessStateEnum	
Unit		

# Result Notes

- 통합 UI 하나로 EDA Operation 수행 가능.
- EDA 현황 을 한눈에 파악 가능
- Abnormal Case 발생 시 자동 조치 및 Tracking 가능.
- Config 수정,추가 가능 하며 Data 끊김 없이 Patch 가능.
- User Group Permission 관리 용이.
- Application Control 용이.
- Log Message 간편하게 확인 가능.