Equinox User Guides

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Document Control

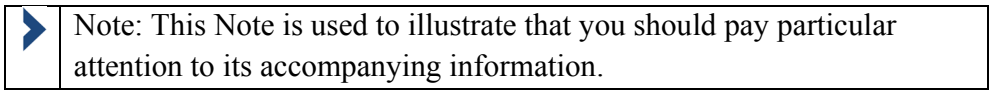
Version History

Version	Description	Author	Date
1.0.0	Initial draft	Korrakot Surakul, AIS	November 2012

Document Conventions

The following typefaces are used throughout this guide:

- `The 'Courier' typeface is used for directory objects and attributes, file names and command line code.`
- *'Italics' are used for emphasis and for cross references*.
- **This bold typeface is used to represent information you should type in at the keyboard.**



References

[1] None

Table of Content

Chapter1: Introduction

Description

Equinox is an application server providing a general purpose interworking function between other network elements over a number of IT de-facto protocols. Equinox can be used to convert protocol or exchange sequences of messages with other systems. It may consist of several physical nodes in order to provide resilience and load sharing. A number of independent applications can run simultaneously on an Equinox node.

When we have planned to develop application on network system, we should to meditate any risk on network system. Each of protocol has advantage and disadvantage. Such as we design network system, use 3 different protocols. How can we design application for support this design? This issue was problem for many developers to provide. And now Equinox was this answer.

Equinox task

The problem of development language interval will be clear up, because Equinox will provide application working flow. Developer can use C,C#,Java language to develop application on a system. Equinox have 4 part to provide network system.

1. Resource Adaptation provides external connection from client or server when connection establish. Support *HTTP, LDAP, DIAMETER* protocols.

2. System Core manages internal process (routing, correlation, organization, management)

3. Container converts data from external node into any development language.

4. Application manages any function and business logic depend on customer requirement.

Chapter 2: Equinox Application

Overview

Equinox is an applications which manage communication from external connection into system which have application functions (AF) to work on logic expression following by user requirement. User can design complex system base on Equinox system although used different language to develop application functions. Any process on Equinox was connected on socket connection. They communicate with Equinox Message. In figure 1 shown Equinox system overview.

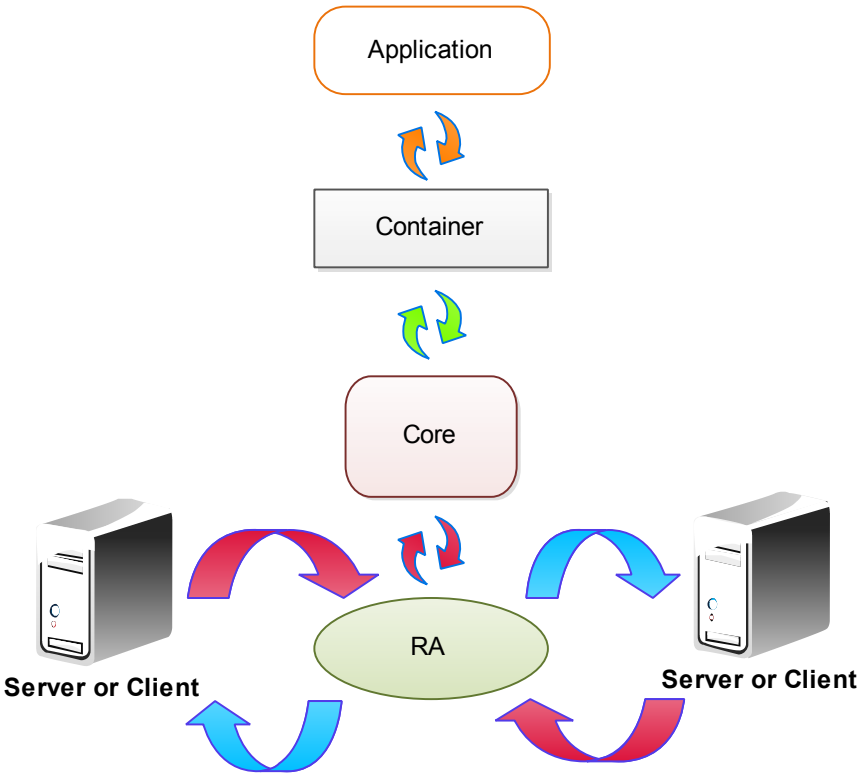


Figure 1: Equinox overview

Internal Architecture

Equinox consists of 3 software layers. The outer layer is the Application Interface Layer, which provides integration point for Application Function. The middle layer is Resource Adaptation Layer, which provides protocol generalization function to the platform. The inner layer is Equinox Facility Layer, which provides common tools for application function.

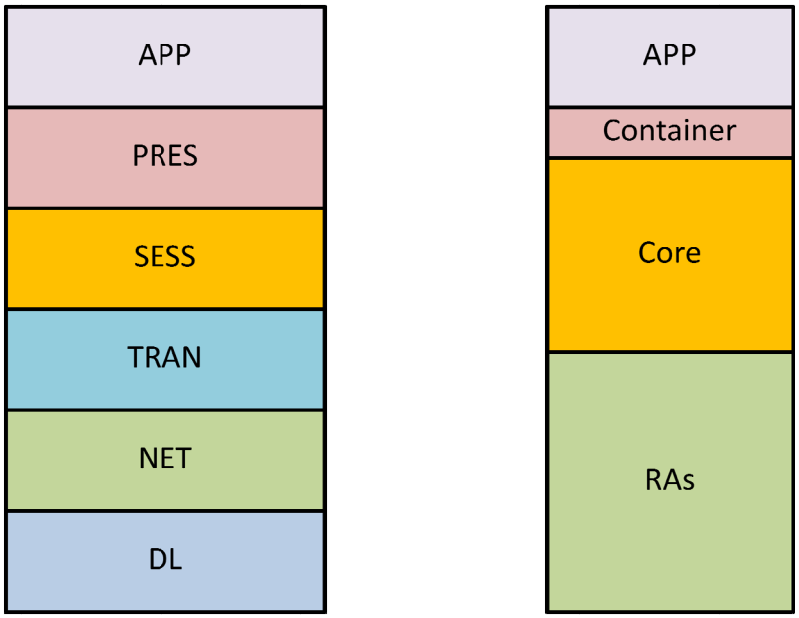


Figure 2: 3 Layers of Equinox

The Application Function (AF) sits on top of ES00 and it is implemented for specific problems. The communication between AF and Equinox AS (EAS) is socket, so it is possible to deploy application on the same or different node.

EAS provides a loosely-coupling platform to develop networking applications. With XML-based form of messages and instance data, it is possible to develop complex applications that handle multiple IT-based protocols. The supporting protocols are XML/HTTP server, XML/HTTP client, LDAP client, DIAMETER server, DIAMETER client, RADIUS server, and DNS server.

Core Layer

There are 6 pairs of processes composing Core Layer, the child process who does the real work and the parent process who monitors the child. These pairs are listed as follows. See in figure 3.

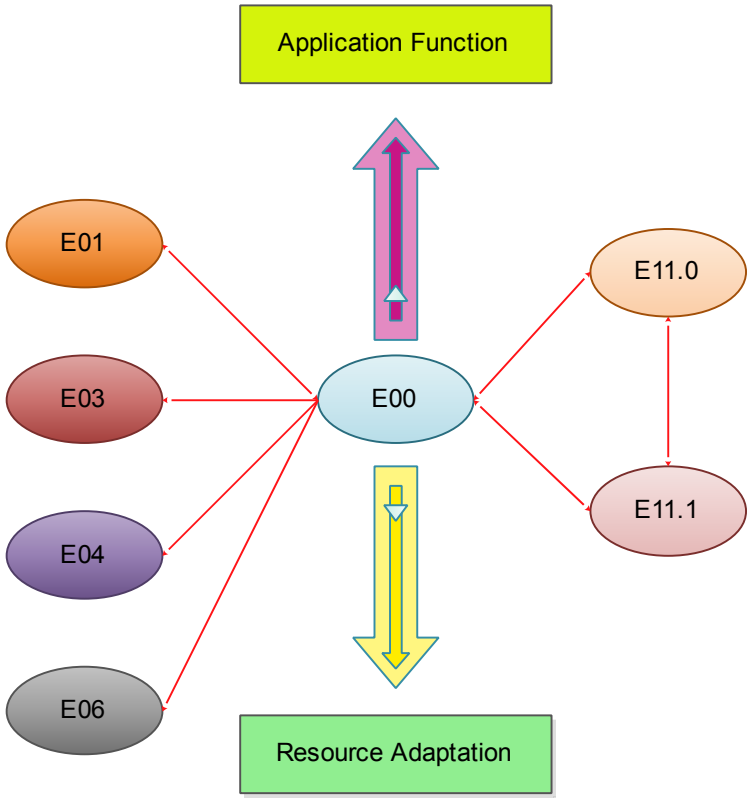


Figure 3: Internal process

1. E00: Internal Message Switching Process

E00 receives registration message from other processes and routing connection to every process on system. The registration message contains service group and service name, which will be used for routing to the target processes. All processes of EAS must register its group and name to the E00.

2. E01: Database Process

E01 stores data of system. This database support maximum 13 keys on extended message and 5 keys on normal message. Use data structure type tree to keep data. Object type is root node and child node has key type. See in figure 4.

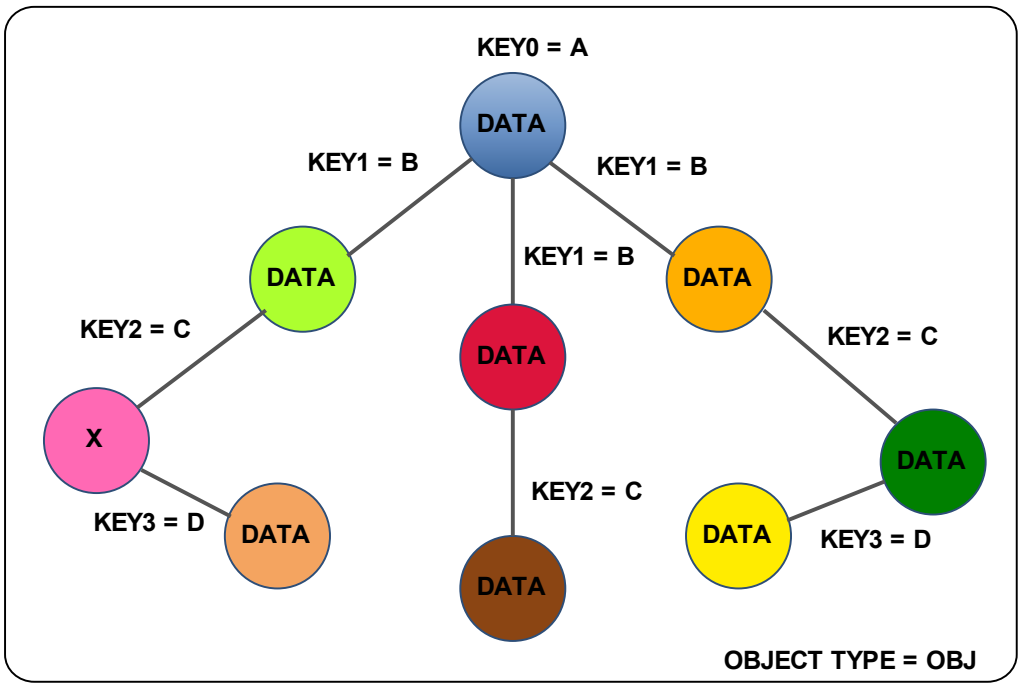


Figure 4: E01 Tree database diagram

The data are colorful circles in figure 4, its shown hierarchy of database system. Such as data color pink has **object type [OBJ], key0 [A], key [B], key2[C], data[X].** All of these have same object type. E01 can have one more object types. This process different other internal process because it can behave server and client. In addition to E01 can use in replicate mode, this see in figure 5.

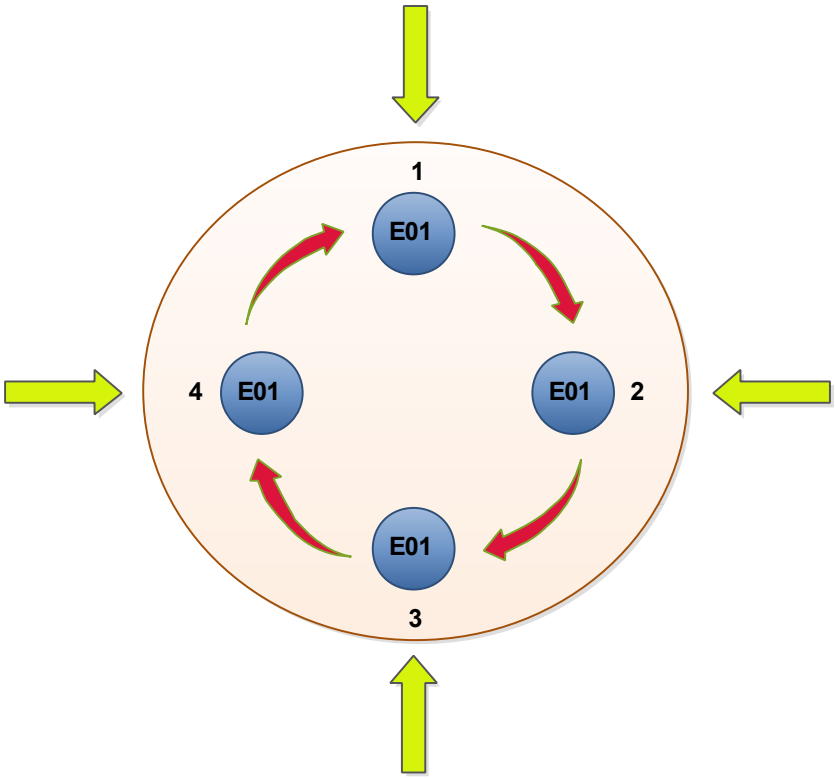


Figure 5: Replicate mode

Replicate mode of E01 process has many E01 process connected each other. When they have external query from client, all of process that replicated will know every event occurrence in group. Such as id1 has data list in database while client query search command to E01 id2 it will return value to client because they synchronize event when occur in group in every processes in group.

Organization and Maintenance Processes Group

- **E03, E04, E06**

3. E03: Alarm Process

E03 alerts when it's have unusual on system. There are 2 types of alarm event. The first In addition to E03 can connect to external system by socket connection. See diagram in figure 6.

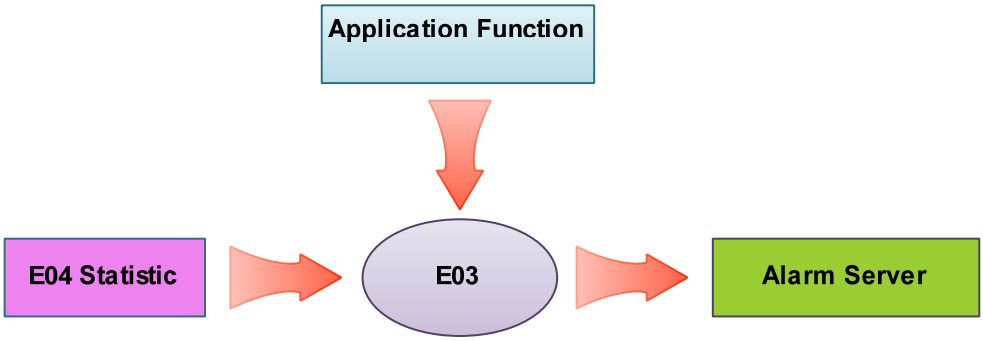


Figure 6: E03 flow diagram

4. E04: Statistic Process

E04 stores all statistic value of application function (AF). User can configure statistic value which was sent form application function. When threshold has exceeded or insufficient, it will send alert to E03. In this process user should have knowledge of statistic state, see in figure 7, 8.

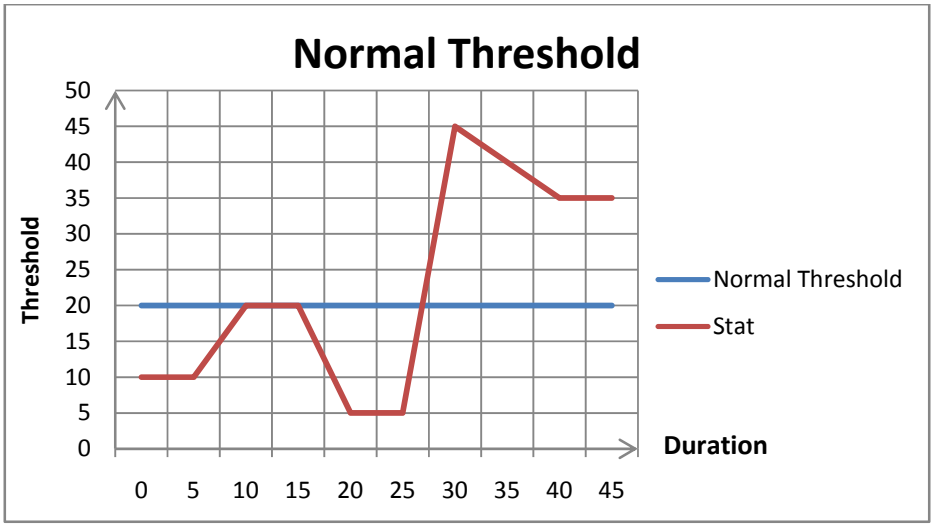


Figure 7: Normal threshold graph

Normal Threshold is value which setting for detect transcendent statistic of system. If statistic over than ***Normal Threshold*** value, it will alert to E03.

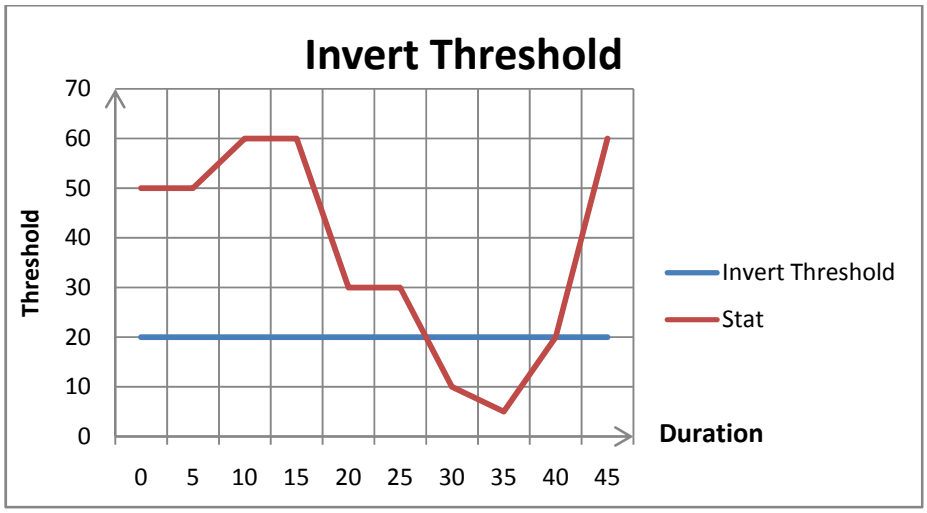


Figure 8: Invert threshold graph

Invert Threshold is value which setting for detect nominal statistic of system. If statistic less than ***Invert Threshold*** value, it will alert to E03.

5. E06: Log Process

E06 stores detail of application working in log format. User can configure log value which sent form application function. See in figure 9.

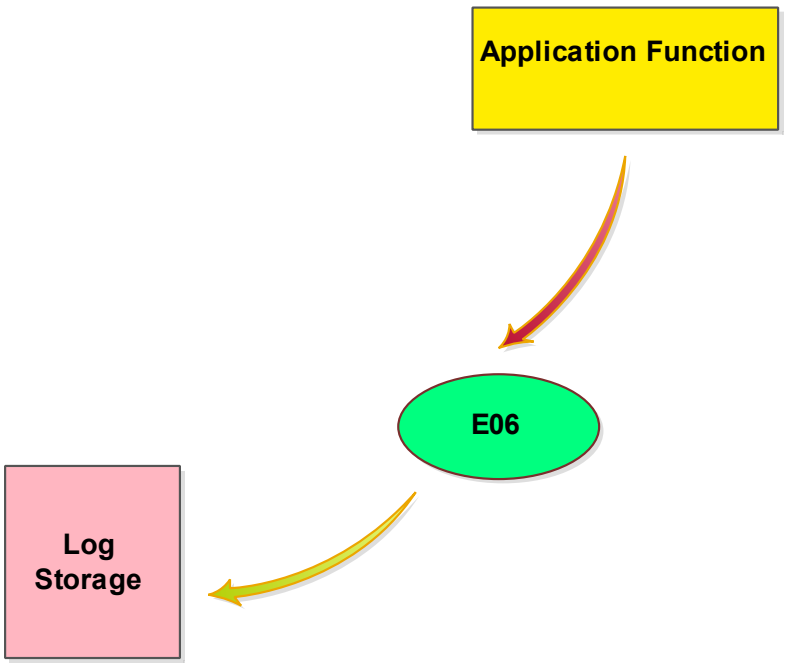


Figure 9: E06 Diagram

6. E11: Correlation Process

E11 receives messages from other processes to create internal transaction identifier (tid) for message correlation. The instance data is allocated during the creation of tid and it will be kept until the application function orders to release the instance. Every message will send to E11 to correlate. In addition E11 can use replicate mode similar E01. See in Figure 10.

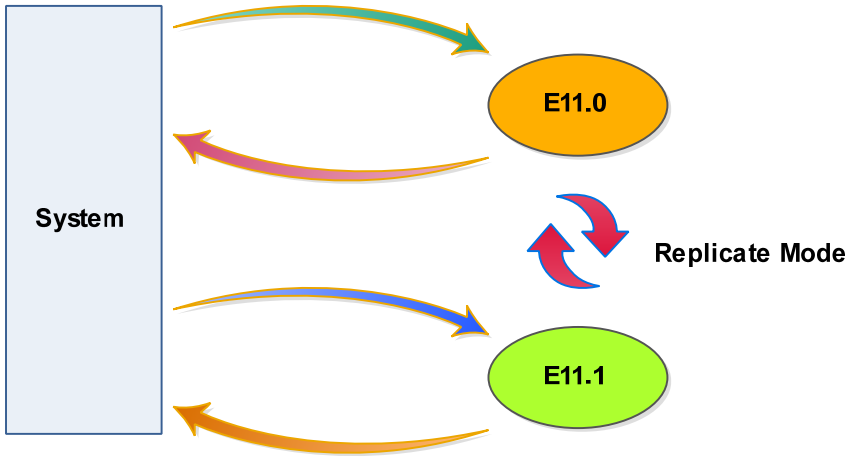


Figure 10: E11 Diagram

Resource Adaptation (RA) Layer

RA is adaptation for each protocol in order to connection with external client and server. Now support (HTTP, LDAP, and DIAMETER) each protocol have two side (client, server) in this follow.

HTTP

The **Hypertext Transfer Protocol (HTTP)** is an application protocol for distributed, collaborative, hypermedia information systems. **HTTP** is the foundation of data communication for the World Wide Web. Hypertext is a multi-linear set of objects, building a network by using logical links (the so-called hyperlinks) between the nodes (e.g. text or words). **HTTP** is the protocol to exchange or transfer hypertext. The standards development of **HTTP** was coordinated by the Internet Engineering Task Force (IETF) and the World Wide Web Consortium (W3C), culminating in the publication of a series of Requests for Comments (RFCs), most notably RFC 2616 (June 1999), which defines HTTP/1.1, the version of HTTP in common use.

HTTP functions as a request-response protocol in the client-server computing model. A web browser, for example, may be the client and an application running on a computer hosting a web site may be the server. The client submits an **HTTP** request message to the server. The server provides resources such as HTML files and other content. Or they perform other functions on behalf of the client. They return a response message to the client. The response contains completion status information about the request and may also contain requested content in its message body.

HTTP is designed to permit intermediate network elements to improve or enable communications between clients and servers. High-traffic websites often benefit from web cache servers that deliver content on behalf of upstream servers to improve response time. Web browsers cache previously accessed web resources and reuses them when possible to reduce network traffic. **HTTP** proxy servers at private network boundaries can facilitate communication for clients without a globally routable address, by relaying messages with external servers.

HTTP is an application layer protocol designed within the framework of the Internet Protocol Suite. Its definition presumes an underlying and reliable transport layer protocol, [2] and Transmission Control Protocol (TCP) predominates for this purpose. However **HTTP** can use unreliable protocols such as the User Datagram Protocol (UDP), for example in Simple Service Discovery Protocol (SSDP).

In Equinox **HTTP** protocol use on ES04 (client) and ES05 (server), these process will connect directly to client or server.

1. ES04: Synchronous XML/HTTP Client Process

ES04 transforms internal message structure to XML structure and carries it over HTTP payload and vice versa. This process will block processing with timeout arming until it receives the response. In addition to ES04 can connect with web-service. See in figure 11.

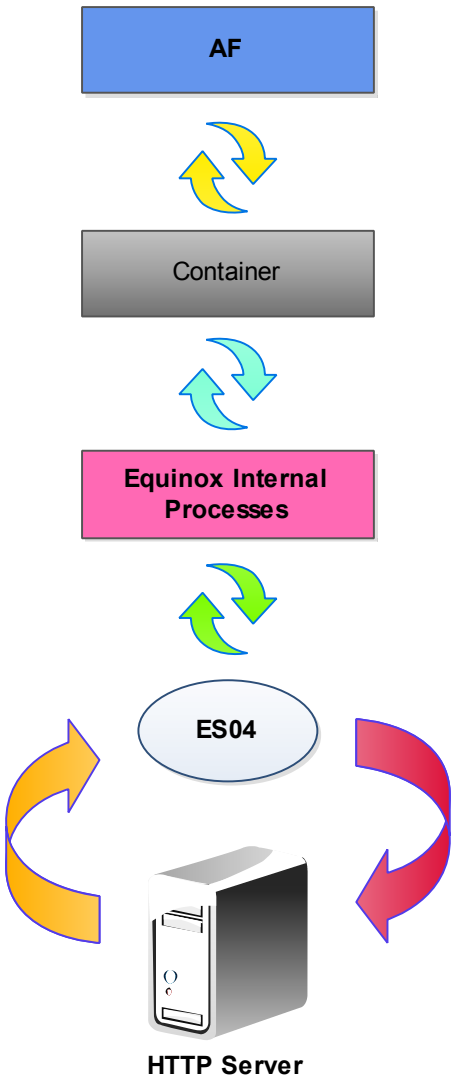


Figure 11: ES04 Flow diagram

2. ES05: Asynchronous XML/HTTP Server Process

ES05 transforms XML structure of HTTP message to EAS internal structure and vice versa. This process will NOT block processing after it received the HTTP request, so it is up to the client to decide whether the messaging should be handled asynchronously. See in figure 12.

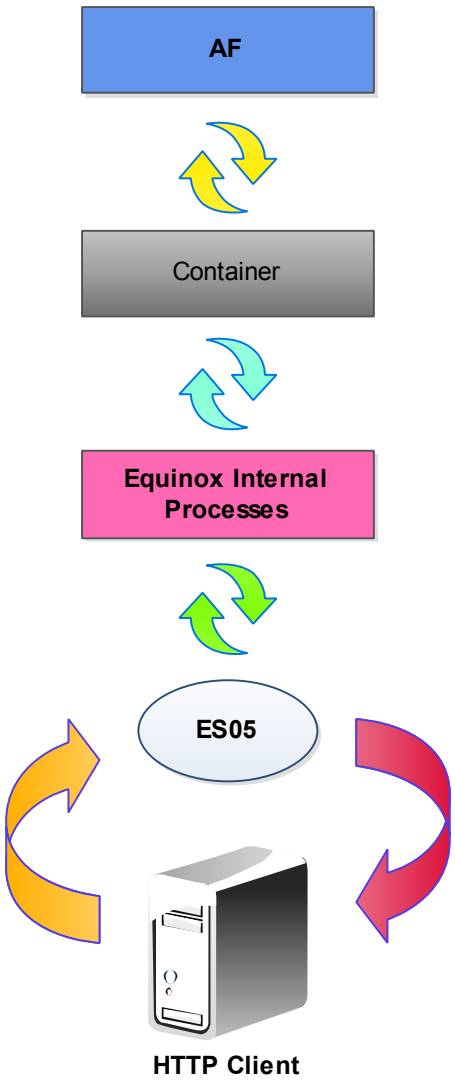


Figure 12: ES05 Flow diagram

LDAP

The Lightweight Directory Access Protocol is an application protocol for accessing and maintaining distributed directory information services over an Internet Protocol (IP) network.

Directory services may provide any organized set of records, often with a hierarchical structure, such as a corporate email directory. Similarly, a telephone directory is a list of subscribers with an address and a phone number.

LDAP is specified in a series of Internet Engineering Task Force (IETF) Standard Track Request for Comments (RFCs), using the description language ASN.1. The latest specification is Version 3, published as RFC 4511.

A client starts an LDAP session by connecting to an LDAP server, called a Directory System Agent (DSA), by default on TCP port 389. The client then sends an operation request to the server, and the server sends responses in return. With some exceptions, the client does not need to wait for a response before sending the next request, and the server may send the responses in any order. All information is transmitted using Basic Encoding Rules (BER).
The client may request the following operations:

- StartTLS — use the LDAPv3 Transport Layer Security (TLS) extension for a secure connection
- Bind — authenticate and specify LDAP protocol version
- Search — search for and/or retrieve directory entries
- Compare — test if a named entry contains a given attribute value
- Add a new entry
- Delete an entry
- Modify an entry
- Modify Distinguished Name (DN) — move or rename an entry
- Abandon — abort a previous request
- Extended Operation — generic operation used to define other operations

Unbind — close the connection (not the inverse of Bind)

3. ES03: LDAPv3 Extended Client Process

ES03 transforms EAS internal message structure to attribute-value pairs of LDAPv3. It's converting information which sent from Equinox system to LDAPv3 format.

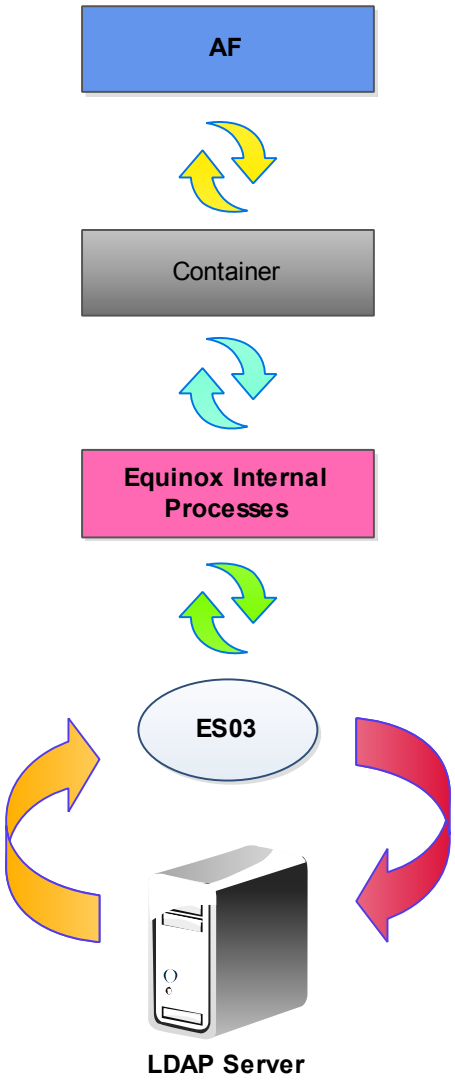


Figure 13: ES03 Flow diagram

4. ES13: LDAP Server Process

ES13 transform LDAP message structure to EAS Internal structure, for send to Equinox system.

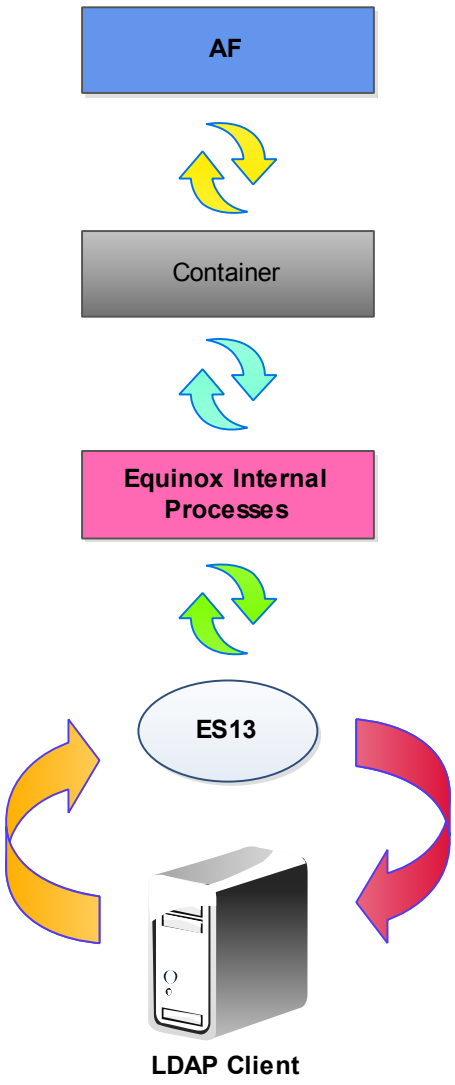


Figure 14: ES13 Flow diagram

DIAMETER

Diameter is an authentication, authorization, and accounting protocol for computer networks and an alternative to RADIUS.

***Diameter Applications* extend** the base protocol by adding new commands and/or attributes, such as those for use of the Extensible Authentication Protocol (EAP).

A *Diameter Application* is not a software application but is a protocol based on the Diameter base protocol (defined in RFC 3588). Each application is defined by an application identifier and can add new command codes and/or new mandatory AVPs. Adding a new optional AVP does not require a new application.
Examples of Diameter applications:

- Diameter Mobile IPv4 Application (Mobile IP, RFC 4004)
- Diameter Network Access Server Application (NASREQ, RFC 4005)
- Diameter Extensible Authentication Protocol Application (RFC 4072)
- Diameter Credit-Control Application (DCCA, RFC 4006)
- Diameter Session Initiation Protocol Application (RFC 4740)
- Various applications in the 3GPP IP Multimedia Subsystem

  Both the HSS and the SLF communicate using the Diameter protocol.

  (Generic Bootstrapping Architecture): Bootstrapping Server Function

The Diameter base protocol is defined by RFC 3588 and defines the minimum requirements for an AAA protocol. *Diameter Applications* can extend the base protocol by adding new commands, attributes, or both. Diameter security is provided by IPsec or TLS. The IANA has

6. ES06: DIAMETER Client Process

ES06 transforms EAS internal structure to AVP structure of DIAMETER message. . It's converting information which sent from Equinox system to Diameter format.

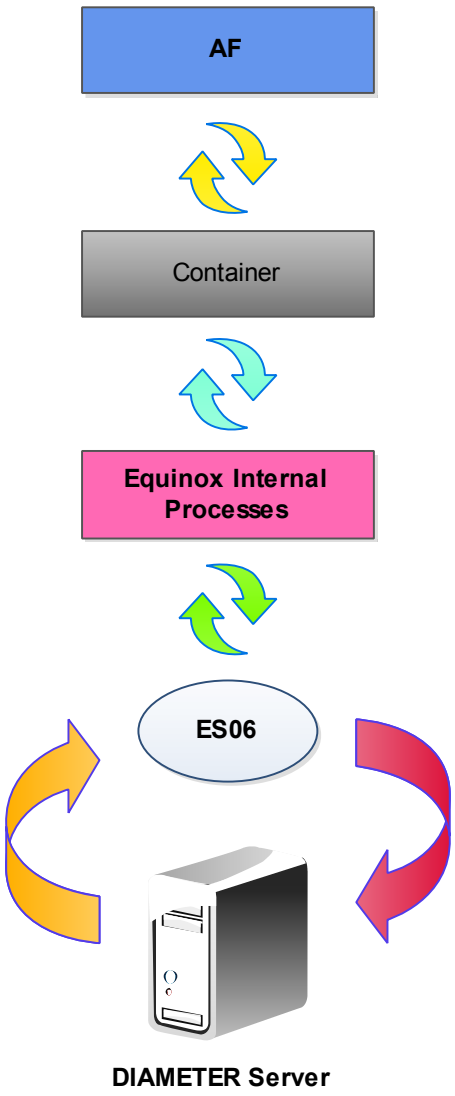


Figure 15: ES06 Flow diagram

7. ES07: DIAMETER Server Process

ES07 transforms AVP structure of DIAMETER message to EAS internal structure, for send to Equinox system.

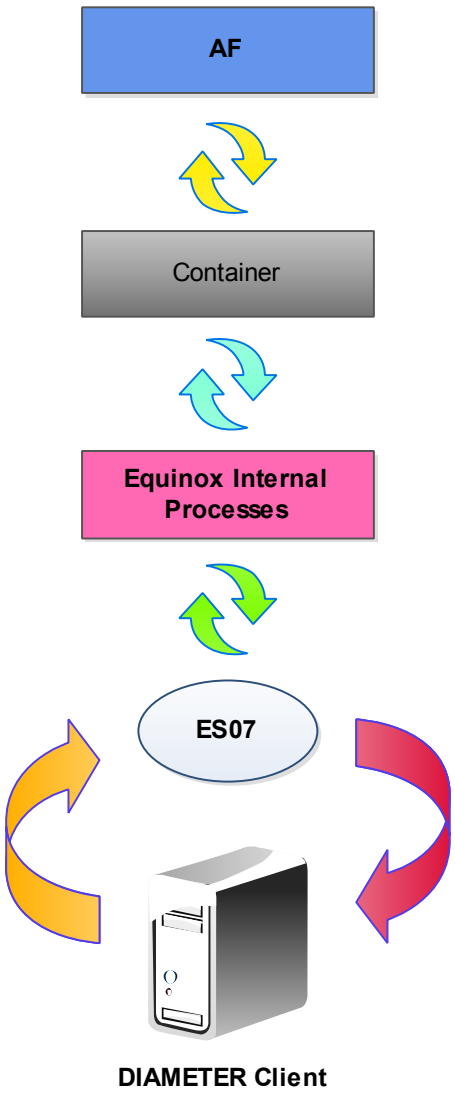


Figure 16: ES07 Flow diagram

Application Interface Layer

In Equinox system, it should have intermediary process to management data which sent and received from RA Layer. Because when system has many application function and each application function developed by different language. E00 was QoS process, it switching data to any process which connected. If E00 escalate management data, it will overload system performance and hard to provide application function. As ES00 was design for solve this problem.

ES00: Application Interface Process

ES00 receive message from RA process after that it will generate message for connect to container layer. This process divides message from application function into two parts. One is core layer process (database, alarm, statistic and log). Two is RA layer process. See in figure 17.

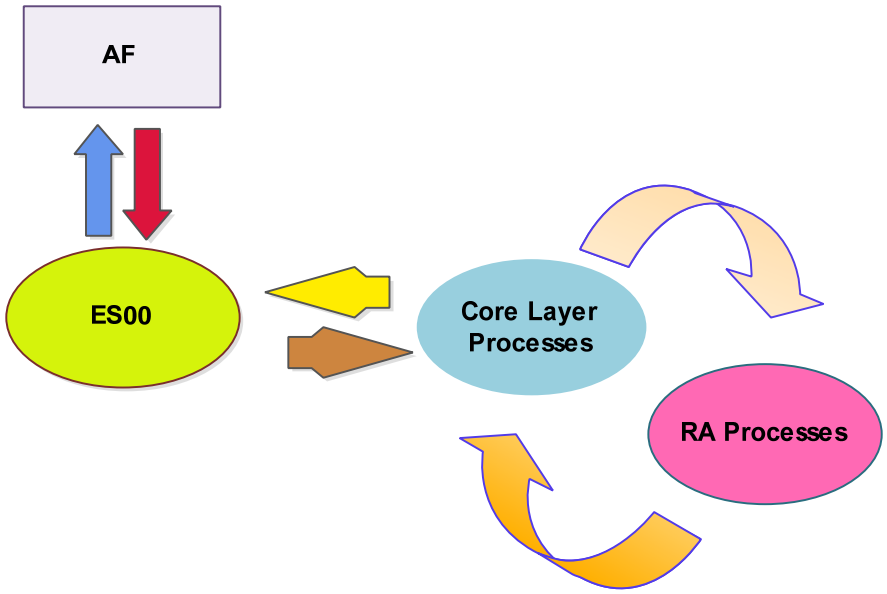


Figure 17: ES00 Flow Diagram

Container Layer

There are 3 pairs of processes composing EAS Container Layer. Communicate with EAS Core Layer and Application. See in figure 17.

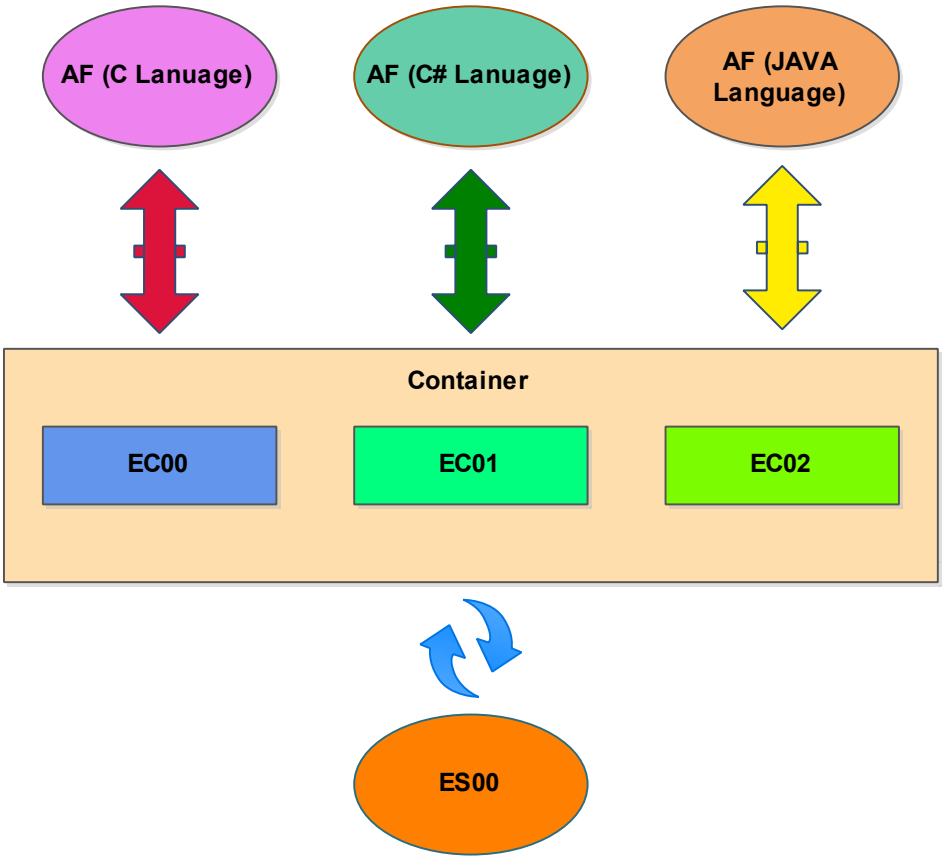


Figure 18: Container overview diagram

Container is adapter between application function (AF) and application interface layer (ES00). This layer will provide data from core layer into standard of application function format, such as decode xml escape characters into default xml format. Each of 3 containers has different standard agreement for developing application function.

1. EC00: C Language Container

EC00 is container of C language. Developer can develop application function by use C language. This container is suitable for high performance application function.

2. EC01: C# Language Container

EC01 is container of C language. Developer can develop application function by use C# language. This conation support OOP (Object Oriented Programming).

3. EC02: JAVA Language Container

EC02 is container of JAVA language. Developer can develop application function by use JAVA language. This conation support OOP (Object Oriented Programming).

Constructor communication message

```
<Equinox Message…..(attributes)……>
   <EquinoxRawData…..(attributes)……>

                    …DATA…

   </EquinoxRawData>

   <EquinoxInstance>
         <value val="" />
   </EquinoxInstance>

</Equinox Message>
```

Equinox Message

In Equinox application use Equinox message for communicate between every process. There are attributes in these follow.

Parameters	Incoming	Outgoing	Note
ret	Return code from Equinox AS; this is NOT return code from external systems.	Return code from AF	SUCCESS: 0 ERROR: 1 REJECT: 2 ABORT: 3 TIMEOUT: 4 END: 10
from	Equinox resource instance name	AF process stub resource instance name	
via	Equinox correlation resource instance name	Equinox correlation resource instance name	Expecting ‘relay’ value
session	Instance session identification	Instance session identification	Expecting ‘relay’ value
timeout	Expecting processing time in second	Expecting processing time in second	-
diag	Diagnostic message	Diagnostic message	-

Table 1: Attributes of EquinoxMessage

These attributes are shown message communication on system. Include EquinoxRawData and Equinox Instance on tag message.

Equinox Raw Data

There are 5 common attributes reside in Message element attribute that are '**to'**, '**type'**, '**name'**, and '**ctype'**. There could be others protocol specific attributes in the same element. The applications or Equinox Service processes will use the common attributes to determine a proper handle of messages. There meanings of the common parameters are depicted in a table below.

Parameters	Description	Note
to	The target that the message is supposed to be delivered	For targeted AF, the 'to' format is […] For targeted client resource, the 'to' format is […] For targeted server resource, the 'to' format is […]
name	The lower layer transportation protocol	HTTP, DIAMETER, LDAP, DNS
type	Status	request or response
ctype	Content type each protocol.	**See in Table 3*
invoke	Value depends on user would be define by any logic.	-

Table 2: Attributes of EquinoxRawData

Attributes of EquinoxRawData have more than **table 2** depends on each protocol. And user can insert data on xml format into EquinoxRawData tag. In addition to EquinoxRawData can has more than one in EquinoxMessage.

The message content type (‘ctype’) could determine formats or type of content underlying in the message. Here is a table shows the plausible content types for each type.

Name	Request Content Types	Response Content Type
HTTP	text/xml, text/plain	text/xml, text/plain
DIAMETER	Credit-Control-Request, Re-Auth-Request, Subscribe-Notifications-Request	Credit-Control-Answer, Re-Auth-Answer, Subscribe-Notifications-Answer
LDAP	search, modify, add, delete, modifyDN, extended	modify, add, delete, modifyDN, searchEntry, searchReference, searchResult, intermediate, extended

Table 3: Content-Type of protocol

Chapter 3: Equinox Basic Flow

HTTP Basic flow

This example will show, how message sent and received on equinox system.

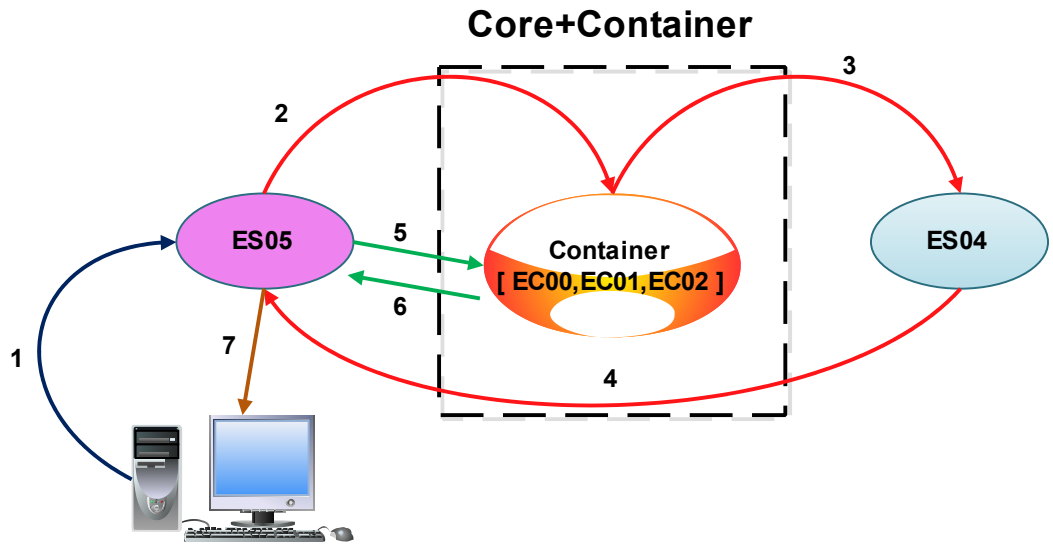


figure 19: HTTP basic flow

Description:

1. Client sends message to ES05 process.
2. ES05 forwards message to AF, in order to estimate data.
3. AF forwards message to ES04.
4. ES04 forwards message to ES05.
5. ES05 forwards message to AF.
6. AF forwards message back to ES05.
7. ES05 returns response to client.

LDAP Basic flow

This example will show, how message sent and received on equinox system.

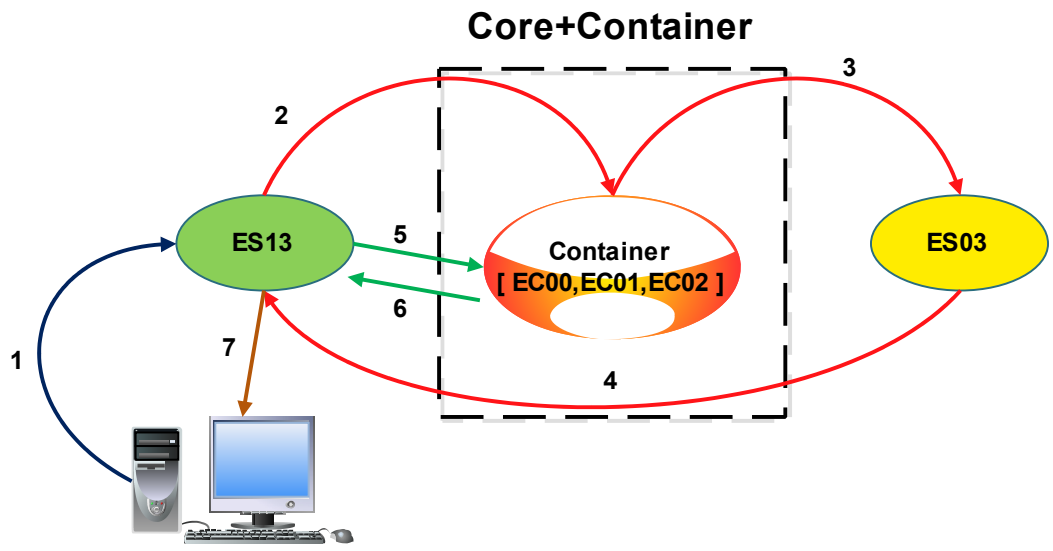


figure 20: LDAP basic flow

Description:

1. Client sends message to ES13 process.
2. ES13 forwards message to AF, in order to estimate data.
3. AF forwards message to ES03.
4. ES03 forwards message to ES13.
5. ES13 forwards message to AF.
6. AF forwards message back to ES13.
7. ES13 returns response to client.

DIAMETER Basic flow

This example will show, how message sent and received on equinox system.

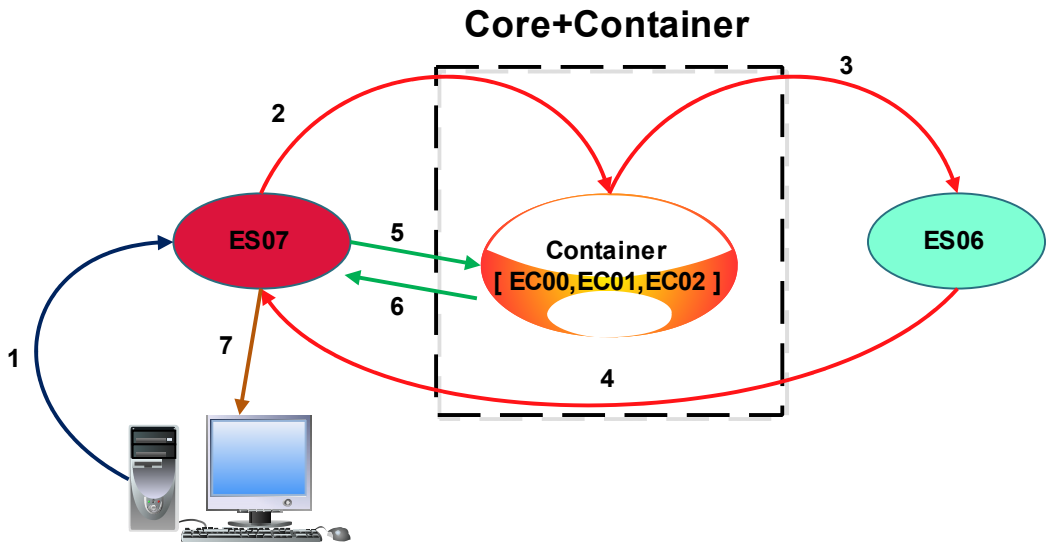


figure 21: DIAMETER basic flow

Description:

1. Client sends message to ES07 process.
2. ES07 forwards message to AF, in order to estimate data.
3. AF forwards message to ES06.
4. ES06 forwards message to ES07.
5. ES07 forwards message to AF.
6. AF forwards message back to ES07.
7. ES07 returns response to client.

Chapter 4: Equinox Configuration

E00 configuration

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
<cold>
<HomeDirectory value="/opt/equinox" />
<Listener port="20200" backlog="256"/>
<sf group="MyApp" service="N/A" instance="0"/>
</cold>
<warm>
<SFLOG value="FATAL|ERROR|WARN|INFO" />
<StatInterval value="10" />
<HousekeeperInterval value="30" />
<RestartDelay value="10" />
<ReadTimeout value="60" />
<WriteTimeout value="60" />
<ACKTimeout value="60" />
<WatchdogInterval value="60" />
<MaxSession value="256" />
<MaxWriteLength value="0" />
<HighMessageCount value="200000" />
<LowMessageCount value="150000" />
<InitPause value="10" />
</warm>
</configuration>
```

Type	Name	Description	Default Value
cold	HomeDirectory	A UNIX directory where all files and directories of EAS.	/opt/equinox
cold	**Listener** port	The socket port that the function listen.	20200
cold	**Listener** backlog	The backlog queue of TCP communication establishment request.	256
cold	**sf** group	The application name of equinox.	MyApp
cold	**sf** service	N/A	N/A
cold	**sf** instance	The instance name of equinox.	Example: 0
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	30
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	10
warm	ReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket.	60

Type	Name	Description	Default Value
warm	WriteTimeout	How much time in second that the write buffer cannot be sent over the established socket.	60
warm	WatchdogInterval	The time interval that the function checks the established connection of the peer.	60
warm	MaxSession	The maximum number of sockets that can be connected to the function.	256
warm	MaxWriteLength	The maximum write buffer size of the function that will be put over the socket.	0 (unlimited)
warm	HighMessageCount	The number of ‘in-queue’ message that the function will consider to change from WORKING to PAUSE state.	200000
warm	LowMessageCount	The number of ‘in-queue’ message that the function will consider to change from PAUSE to WORKING state.	150000

E01 Configuration

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
	<cold>
		<HomeDirectory value="/opt/equinox" />
		<sf group="MyApp" service="0" instance="0">
			<Host host="localhost" port="20200" />
		</sf>
		<httpd ip="0.0.0.0" port="11111" backlog="256" />
		<db id="1" ip="0.0.0.0" port="45676" size="100000" link_file="latest_backup1">
			<replication id="2" ip="localhost" port="45677" />
		</db>
	</cold>
	<warm>
		<SFLOG value="FATAL|ERROR|WARN|INFO" />
		<StatInterval value="10" />
		<HousekeeperInterval value="10" />
		<RestartDelay value="1" />
		<MaxRetry value="0" />

		<SFMessageTimeout value="5" />
		<SFMaxClient value="1" />
		<SFConnectTimeout value="10" />
		<SFReadTimeout value="5" />
		<SFWriteTimeout value="30" />
		<SFACKTimeout value="60" />
		<SFWatchdogInterval value="10" />
		<SFMaxWriteLength value="0" />
		<SFHighMessageCount value="20000" />
		<SFLowMessageCount value="15000" />

		<HttpMaxSession value="200" />
		<HttpReadTimeout value="5" />
		<HttpWriteTimeout value="5" />
		<HttpIdleTimeout value="30" />
		<BatonHeartbeatTimer value="30" />

	</warm>
</configuration>
```

Type	Name	Description	Default Value
cold	HomeDirectory	A UNIX directory where all files and directories of VSCPBE reside in	/opt/equinox
cold	**sf** group	The application name of equinox	APP_NAME
cold	**sf** service	Service name of Equinox	0 :only
cold	**sf** instance	The instance name of Equinox	0
cold	**host** host	The host address of ‘E00’	localhost
cold	**host** port	The port number of ‘E01’	20200
cold	**httpd** host	The IP address of Application Function	0.0.0.0
cold	**httpd** port	The listen port number of Application Function	9090
cold	**httpd** backlog	The ‘sync’ backlog of resource adaptor	256
cold	**db** id	Identify number of E01 process for replicate mode	1
cold	**db** ip	The host address of E01 for replicate mode	0.0.0.0
cold	**db** port	The port number of E01 for replicate mode	45676
cold	**db** size	Size of backup file E01 process	100000
cold	**db** link_file	File name of backup file	latest_backup1
cold	**replication** id	Identify number of other E01 process which connected	2
cold	**replication**ip	The ip address of other E01 process which connected	localhost
cold	**replication**port	The port number of other E01 process which connected	45677

Type	Name	Description	Default Value
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	10
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	1
warm	MaxRetry	The maximum number of retrying on sending message to ‘E00’	0
warm	SFMessageTimeout value	The armed time out in second of message sent to ‘E00’	60
warm	SFMaxClient	Maximum client connected	1
warm	SFConnectTimeout	The armed connection timeout toward ‘E00’	10
warm	SFReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	5
warm	SFWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	SFACKTimeout	How much time in second that the acknowledgment of the peer has been lost	60
warm	SFWatchdogInterval	The time interval that the function checks the established connection of the peer	30

Type	Name	Description	Default Value
warm	SFMaxWriteLength	The maximum write buffer size of the function that will be put over the socket	0(unlimited)
warm	SFHighMessageCount	The maximum counter of message	20000
warm	SFLowMessageCount	The minimum counter of message	15000
warm	HttpMaxSession	The number of 'in-queue' message that the function will consider to change from WORKING to PAUSE state	200
warm	HttpReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	5
warm	HttpWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	5
warm	HttpIdleTimeout	Time to idle state timeout	30
warm	BatonHeartbeatTimer	Initial time for waiting state	30

E03 Configuration

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
<cold>
<HomeDirectory value="/opt/equinox" />
<sf group="app" service="serv" instance="ins">
<Host host="localhost" port="8787" />
</sf>

<CAM host="10.240.141.72" port="80" uri="/">
<Header name="Pragma" value="no-cache" />
<Header name="Accept" value="image/gif, image/x-xbitmap, image/jpeg, image/pjpeg, */*" />
<Header name="Content-Type" value="application/x-www-form-urlencoded" />
</CAM>
</cold>
<warm>
<SFLOG value="FATAL|ERROR|WARN|INFO|DEBUG" />
<StatInterval value="10" />
<HousekeeperInterval value="10" />
<RestartDelay value="10" />
<MaxRetry value="1" />

<SFMessageTimeout value="60" />
<SFMaxClient value="10" />
<SFConnectTimeout value="10" />
<SFReadTimeout value="30" />
<SFWriteTimeout value="30" />
<SFACKTimeout value="60" />
<SFWatchdogInterval value="10" />
<SFMaxWriteLength value="0" />

<HttpMaxClient value="10" />
<HttpConnectTimeout value="10" />
<HttpWaitTimeout value="60" />
<HttpReadTimeout value="30" />
<HttpWriteTimeout value="30" />
<HttpMaxWriteLength value="0" />
<HighMessageCount value="200000" />
<LowMessageCount value="150000" />
<HttpMaxRetryConnectionError value="10" />
<HttpReconnectInterval value="10" />
<AlarmProcess>
```

```
        <SystemName value="OCF" />
        <SystemID value="0521"/>
        <AlarmID value="0000"/>
        <AllowAction value="DISK" />
        <Severity>
                <CRITICAL action="CAM|DISK" />
                <MAJOR action="DISK|CAM" SLA="30"/>
                <MINOR action="DISK|CAM" SLA="60" />
                <WARNING action="DISK" SLA="120"/>
                <INFO action="" SLA="180"/>
        </Severity>
        <FormatFilename value="alarm_${TIMESTAMP@%Y%m%d%H%M@}.log" />
        <TargetDirectory value="/opt/equinox/appalarm"/>
        <TimeAlignment value="00.00" />
        <Duration value="60"/>
        <Maxsize value="20K"/>
        <Override value="NO"/>
        <Header value="Start"/>
        <Footer value="End"/>

        <Alarm name="EQALARM_name1_%s_%s" id="123" >
                <RetryPattern value="10|600|3600|700|800|900"/>
        </Alarm>
        <Alarm name="EQALARM_name2_%s_%s_%s_%s" id="124">
                <RetryPattern value="10|600|3600"/>
        </Alarm>
        <Alarm name="EQALARM_name3" id="125">
                <RetryPattern value="10|600|3600"/>
        </Alarm>

        </AlarmProcess>
</warm>
</configuration>
```

Type	Name	Description	Default Value
cold	**HomeDirectory** value	A UNIX directory where all files and directories of VSCPBE reside in	/opt/equinox
cold	**sf** group	The application name of equinox	APP_NAME
cold	**sf** service	Service name of Equinox	0 :only
cold	**sf** instance	The instance name of Equinox	0
cold	**host** host	The host address of ‘E03’	localhost
cold	**host** port	The port number of ‘E03’	20200
cold	**CAM** host	CAM host address	-
cold	**CAM** port	CAM port number	-
cold	**CAM** Header name	The configurable list of HTTP header name	-
cold	**CAM** Header value	The configurable list of HTTP header value	-
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	10
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	1
warm	MaxRetry	The maximum number of retrying on sending message to ‘E00’	0

Type	Name	Description	Default Value
warm	SFMessageTimeout value	The armed time out in second of message sent to ‘E00’	60
warm	SFConnectTimeout	The armed connection timeout toward ‘E00’	10
warm	SFReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	5
warm	SFWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	SFACKTimeout	How much time in second that the acknowledgment of the peer has been lost	60
warm	SFWatchdogInterval	The time interval that the function checks the established connection of the peer	30
warm	SFMaxWriteLength	The maximum write buffer size of the function that will be put over the socket	0(unlimited)
warm	HttpMaxClient	The maximum http client connected to E03 processs	1
warm	HttpConnectionTimeout	Time interval for connection loss status	10
warm	HttpReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	30
warm	HttpWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30

Type	Name	Description	Default Value
warm	HighMessageCount	Maximum message count	200000
warm	LowMessageCount	Minimum message count	150000
warm	HttpMaxRetryConnectionError	Time for retry when connection error	10
warm	HttpReconnectInterval	Time interval for reconnection	10
warm	SystemName	Name of system	-
warm	SystemID	Number of system	0000
warm	AlarmID	Number of alarm	0000
warm	AllowAction	Action of allow mode	
warm	CRITICAL action	Allow action for operate	CAM|DISK
warm	MAJOR action	Allow action for operate	DISK|CAM
warm	MAJOR SLA	Time duration for operate	30
warm	MINOR action	Allow action for operate	DISK|CAM
warm	MINOR SLA	Time duration for operate	60
warm	WARNING action	Allow action for operate	DISK
warm	WARNING SLA	Time duration for operate	120
warm	INFO action	Allow action for operate	-
warm	INFO SLA	Time duration for operate	180
warm	FormaFilename	Indentify filename	alarm1_${TIMESTAMP@%Y%m%d%H%M@}.log
warm	TagetDirectory	Target for store log file	/opt/equinox/alarm
warm	TimeAlignment	Time for write log file	00.05

Type	Name	Description	Default Value
warm	Duration	Duration of log file	300
warm	Maxsize	Maximum log file size	20K
warm	Override	Override status	NO
warm	Header	Header status	Start
warm	Footer	Footer status	End
warm	Alarm name	Name of alarm	EQALARM_name
warm	Alarm id	Identify number of alarm	123
warm	Alarm RetryPattern	Return value pattern	10|600|3600

E04 Configuration

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
<cold>
<HomeDirectory value="/opt/equinox" />
<sf group="APP_NAME" service="N/A" instance="0">
<Host host="localhost" port="20200" />
</sf>
        <httpd ip="0.0.0.0" port="7878" backlog="256" />
</cold>
<warm>
<SFLOG value="FATAL|ERROR|WARN|INFO" />
<StatInterval value="10" />
<HousekeeperInterval value="10" />
<RestartDelay value="10" />
<MaxRetry value="1" />

<SFMessageTimeout value="60" />
<SFMaxClient value="1" />
<SFConnectTimeout value="10" />
<SFReadTimeout value="30" />
<SFWriteTimeout value="30" />
<SFACKTimeout value="60" />
<SFWatchdogInterval value="30" />
<SFMaxWriteLength value="0" />
<SFHighMessageCount value="10000" />
<SFLowMessageCount value="1000" />

<HttpMaxSession value="200" />
<HttpReadTimeout value="5" />
<HttpWriteTimeout value="5" />
<HttpIdleTimeout value="30" />
<HttpMaxWriteLength value="0" />

<StatFile name="STATEQ1">
<FormatFilename value="${FILENAME}_${TIMESTAMP@%Y%m%d%H%M@}.stat" />
        <Targetdirectory value="/opt/equinox/appstat/"/>
        <Timealignment value="00.00" />
        <DurationFile value="300"/>
        <DurationStat value="60"/>
        <Maxsize value="1000"/>
        <Override value="NO"/>
```

```
<Format value="${TIMESTAMP@%Y%m%d
%H:%M:%S@}|${HOSTNAME}|${STATNAME}|${MIN}|${MAX}|${AVERAGE}|${COUNTER}"/>
<Header value="TIMESTAMP|HOSTNAME|STATNAME|MIN|MAX|AVERAGE|COUNTER"/>
<Footer value=""/>
                <AverageTime value="5"/>
        </StatFile>

        <StatProcess>
                <Stat name="stat_test1" group="N/A">
                        <InvertThreshold value="0"/>
                        <NormalThreshold value="0"/>
                        <RepeatEnable value="YES"/>
                        <ClearEnable value="YES"/>
                </Stat>
        </StatProcess>

</warm>
</configuration>
```

Type	Name	Description	Default Value
cold	HomeDirectory	A UNIX directory where all files and directories of VSCPBE reside in	/opt/equinox
cold	**sf** group	The application name of equinox	APP_NAME
cold	**sf** service	Service name of Equinox	0 :only
cold	**sf** instance	The instance name of Equinox	0
cold	**host** host	The host address of ‘E00’	localhost
cold	**host** port	The port number of ‘E01’	20200
cold	**httpd** host	The IP address of Application Function	0.0.0.0
cold	**httpd** port	The listen port number of Application Function	9090
cold	**httpd** backlog	The ‘sync’ backlog of resource adaptor	256
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	10
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	1
warm	MaxRetry	The maximum number of retrying on sending message to ‘E00’	0

Type	Name	Description	Default Value
warm	SFMessageTimeout value	The armed time out in second of message sent to ‘E00’	60
warm	SFMaxClient	Maximum client connected	1
warm	SFConnectTimeout	The armed connection timeout toward ‘E00’	10
warm	SFReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	5
warm	SFWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	SFACKTimeout	How much time in second that the acknowledgment of the peer has been lost	60
warm	SFWatchdogInterval	The time interval that the function checks the established connection of the peer	30
warm	SFMaxWriteLength	The maximum write buffer size of the function that will be put over the socket	0(unlimited)
warm	SFHighMessageCount	The maximum counter of message	20000
warm	SFLowMessageCount	The minimum counter of message	15000
warm	HttpMaxSession	The number of ‘in-queue’ message that the function will consider to change from WORKING to PAUSE state	200
warm	HttpReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	30

Type	Name	Description	Default Value
warm	HttpWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	HttpIdleTimeout	Time to idle state timeout.	30
warm	HttpMaxWriteLength	Limit of http write.	0
warm	StatFile name	Statistic filename	STATEQ1
warm	FormatFilename	Initialize format for stat file	${FILENAME}_${TIMESTAMP @%Y%m%d%H%M@}.stat
warm	Timealignment	Initialize time to start	00:00
warm	Targetdirectory	Initialize target directory to store stat files.	/opt/equinox/appstat
warm	DurationFile	Time duration for write stat file. (sec)	600
warm	DurationStat	Time duration for keep stat in buffer to write file .(sec)	60
warm	Maxsize	Maximum size of stat file. (KB)	5K
warm	Override	Override configuration.	NO
warm	Format	Format stat store value.	${STATNAME}\|${MIN}|${MAX} \|${AVERAGE}|${COUNTER}
warm	Header	Header status	Start
warm	Footer	Footer status	End
warm	AverageTime	Average time.(sec)	10
warm	Stat name	Name of statistic	stat_test1
warm	Stat group	Group name of statistic	N/A

Type	Name	Description	Default Value
warm	InvertThreshold	Minimum threshold stat value.	0 (Disable)
warm	NormalThreshold	Maximum threshold stat value.	0 (Disable)
warm	RepeatEnable	Repeat alarm when continuous.	Yes
warm	ClearEnable	Clear alarm when	Yes

E06 Configuration

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
<cold>
<HomeDirectory value="/opt/equinox" />
<sf group="myApp" service="0" instance="0">
<Host host="localhost" port="20000" />
</sf>
<httpid ip="0.0.0.0" port="9898" backlog="256" />
</cold>
<warm>
<SFLOG value="FATAL|ERROR|WARN|INFO" />
<StatInterval value="10" />
<HousekeeperInterval value="10" />
<RestartDelay value="10" />
<MaxRetry value="1" />

<SFMessageTimeout value="60" />
<SFMaxClient value="1" />
<SFConnectTimeout value="10" />
<SFReadTimeout value="30" />
<SFWriteTimeout value="30" />
<SFACKTimeout value="60" />
<SFWatchdogInterval value="30" />
<SFMaxWriteLength value="0" />
<SFHighMessageCount value="10000" />
<SFLowMessageCount value="1000" />

<LogProcess>
<Log name="myLog1">
<FormatFilename value="myLog1_${TIMESTAMP@%Y%m%d%H%M@}.log" />
<TargetDirectory value="/opt/equinox/applog"/>
<TimeAlignment value="00.00" />
<Duration value="300"/>
        <CDRDuration value="5"/>
<Maxsize value="100K"/>
<Override value="NO"/>
<Format value=""/>
<Header value="Start"/>
<Footer value="End"/>
</Log>
```

```
        </LogProcess>
</warm>
</configuration>
```

Type	Name	Description	Default Value
cold	HomeDirectory	A UNIX directory where all files and directories of VSCPBE reside in	/opt/equinox
cold	**sf** group	The application name of equinox	APP_NAME
cold	**sf** service	Service name of Equinox	0 :only
cold	**sf** instance	The instance name of Equinox	0
cold	**host** host	The host address of ‘E00’	localhost
cold	**host** port	The port number of ‘E01’	20200
cold	**httpd** host	The IP address of Application Function	0.0.0.0
cold	**httpd** port	The listen port number of Application Function	9090
cold	**httpd** backlog	The ‘sync’ backlog of resource adaptor	256
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	10
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	1
warm	MaxRetry	The maximum number of retrying on sending message to ‘E00’	0

Type	Name	Description	Default Value
warm	SFMessageTimeout value	The armed time out in second of message sent to ‘E00’	60
warm	SFMaxClient	Maximum client connected	1
warm	SFConnectTimeout	The armed connection timeout toward ‘E00’	10
warm	SFReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	5
warm	SFWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	SFACKTimeout	How much time in second that the acknowledgment of the peer has been lost	60
warm	SFWatchdogInterval	The time interval that the function checks the established connection of the peer	30
warm	SFMaxWriteLength	The maximum write buffer size of the function that will be put over the socket	0(unlimited)
warm	SFHighMessageCount	The maximum counter of message	20000
warm	SFLowMessageCount	The minimum counter of message	15000
warm	Log name	Log name	myLog1
warm	FormatFilename	Initialize format filename.	logname1_${TIMESTAMP @%Y%m%d%H%M@}.log
warm	TargetDirectory	Initialize target filename.	/opt/equinox/applog

Type	Name	Description	Default Value
warm	TimeAlignment	Time for start	00:00
warm	Duration	Time duration of stat file	300
warm	CDR Duration	Duration of CDR	300
warm	Maxsize	Maximum size of stat file	1K
warm	Override	Override status when data overflow.	NO
warm	Format	Manual setting timestamp.	N/A
warm	Header	Header status	Start
warm	Footer	Footer status	End

E11 Configuration

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
<cold>
<HomeDirectory value="/opt/equinox" />
<sf group="APP_NAME" service="N/A" instance="0">
<Host host="localhost" port="20200" />
</sf>
<dmp port="3868" dictionary="E11.dict" org_host="localhost" org_realm="toro.ais.co.th"
ip="127.0.0.1" vendor="AIS" product="equinox" standalone="no" />
<diameter host="127.0.0.1" port="3868" dictionary="E11.dict" org_host="localhost"
org_realm="toro.ais.co.th" ip="127.0.0.1" app="4" vendor="AIS" product="equinox" />
</cold>
<warm>
<SFLOG value="FATAL|ERROR|WARN|INFO" />
<StatInterval value="10" />
<HousekeeperInterval value="10" />
<RestartDelay value="10" />
<MaxRetry value="1" />

<SFMessageTimeout value="60" />
<SFMaxClient value="1" />
<SFConnectTimeout value="10" />
<SFReadTimeout value="30" />
<SFWriteTimeout value="30" />
<SFACKTimeout value="60" />
<SFWatchdogInterval value="30" />
<SFMaxWriteLength value="0" />
<SFHighMessageCount value="10000" />
<SFLowMessageCount value="1000" />

<DMPMaxSession value="200" />
<DMPReadTimeout value="30" />
<DMPWriteTimeout value="30" />
<DMPEventTimeout value="30" />
<DMPMaxWriteLength value="0" />
<DMPWatchdogInterval value="15" />

<DiameterMaxClient value="10" />
<DiameterConnectTimeout value="10" />
<DiameterWaitTimeout value="60" />
```

```
<DiameterReadTimeout value="30" />
<DiameterWriteTimeout value="30" />
<DiameterMaxWriteLength value="0" />
<DiameterWatchdogInterval value="15" />
<DiameterEventTimeout value="30" />
<DiameterAnswerTimeout value="30" />

</warm>
</configuration>
```

Type	Name	Description	Default Value
cold	HomeDirectory	A UNIX directory where all files and directories of VSCPBE reside in	/opt/equinox
cold	**sf** group	The application name of equinox	APP_NAME
cold	**sf** service	Service name of Equinox	0 :only
cold	**sf** instance	The instance name of Equinox	0
cold	**host** host	The host address of ‘E00’	localhost
cold	**host** port	The port number of ‘E01’	20200
cold	**dmp** port	Diameter open port	3668
cold	**dmp** dictionary	Diameter dictionary name	E11.dict
cold	**dmp** org_host	Diameter org_host	localhost
cold	**dmp** org_relm	Diameter org_relm	toro.ais.co.th
cold	**dmp** ip	Diameter ip-address	127.0.0.1
cold	**dmp** vendor	Diameter vendor	AIS
cold	**dmp** product	Diameter product	equinox
cold	**dmp** standalone	Diameter standalone mode	no
cold	**diameter** host	Diameter connected host	127.0.0.1
cold	**diameter** port	Diameter connected port	3868
cold	**diameter** dictionary	Diameter connected dictionary	E11.dict
cold	**diameter** org_host	Diameter connected org_host	localhost
cold	**diameter** org_relm	Diameter connected org_relm	toro.ais.co.th

Type	Name	Description	Default Value
cold	**diameter** ip	Diameter connected ip	127.0.0.1
cold	**diameter** app	Diameter connected app	4
cold	**diameter**vendor	Diameter connected vender	AIS
cold	**diameter** product	Diameter connected product	equinox
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	10
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	1
warm	MaxRetry	The maximum number of retrying on sending message to ‘E00’	0
warm	SFMessageTimeout value	The armed time out in second of message sent to ‘E00’	60
warm	SFMaxClient	Maximum client connected	1
warm	SFConnectTimeout	The armed connection timeout toward ‘E00’	10
warm	SFReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	5
warm	SFWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30

Type	Name	Description	Default Value
warm	SFACKTimeout	How much time in second that the acknowledgment of the peer has been lost	60
warm	SFWatchdogInterval	The time interval that the function checks the established connection of the peer	30
warm	SFMaxWriteLength	The maximum write buffer size of the function that will be put over the socket	0(unlimited)
warm	SFHighMessageCount	The maximum counter of message	20000
warm	SFLowMessageCount	The minimum counter of message	15000
warm	DMPMaxSession	Maximum session connection.	200
warm	DMPReadTimeout	Read process timeout.	30
warm	DMPWriteTimeout	Write process timeout.	30
warm	DMPEventTimeout	Event process timeout.	30
warm	DMPMaxWriteLength	Maximum write length.	0
warm	DMPWatchdogInterval	Interval of watchdog.	30
warm	DiameterMaxClient	The maximum number of sockets that can be connected to DIAMETER server	10
warm	DiameterConnectTimeout	The armed connection timeout toward DIAMETER server	10
warm	DiameterWaitTimeout	How much time in second that the resource adaptor will wait DIAMETER for response	60

Type	Name	Description	Default Value
warm	DiameterReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	30
warm	DiameterWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	DiameterMaxWriteLength	The maximum write buffer size of the function that will be put over the socket towards DIAMETER server	0 (unlimited)
warm	DiameterWatchdogInterval	The time interval that the function checks the established connection of the DIAMETER peer	30
warm	DiameterEventTimeout	How much time in second that resource adaptor cannot send DWR	30
warm	DiameterAnswerTimeout	How much time in second that resource adaptor cannot receive DWA	30

ES00 Configuration

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
<cold>
<HomeDirectory value="/opt/equinox" />
<sf group="APP_NAME" service="N/A" instance="0">
<Host host="localhost" port="20200" />
</sf>
<http host="localhost" port="80" uri="/">
<Header name="Pragma" value="no-cache" />
<Header name="Accept" value="image/gif, image/x-xbitmap, image/jpeg, image/pjpeg, */*" />
<Header name="Content-Type" value="application/x-www-form-urlencoded" />
</http>
</cold>
<warm>
<SFLOG value="FATAL|ERROR|WARN|INFO" />
<StatInterval value="10" />
<HousekeeperInterval value="10" />
<RestartDelay value="10" />
<MaxRetry value="1" />

<SFMessageTimeout value="60" />
<SFMaxClient value="1" />
<SFConnectTimeout value="10" />
<SFReadTimeout value="30" />
<SFWriteTimeout value="30" />
<SFACKTimeout value="60" />
<SFWatchdogInterval value="30" />
<SFMaxWriteLength value="0" />

<HttpMaxClient value="10" />
<HttpConnectTimeout value="10" />
<HttpWaitTimeout value="60" />
<HttpReadTimeout value="30" />
<HttpWriteTimeout value="30" />
<HttpMaxWriteLength value="0" />

<HighMessageCount value="200000" />
<LowMessageCount value="150000" />
</warm>
</configuration>
```

Type	Name	Description	Default Value
cold	HomeDirectory	A UNIX directory where all files and directories of VSCPBE reside in	/opt/equinox
cold	**sf** group	The application name of equinox	APP_NAME
cold	**sf** service	Service name of Equinox	0 :only
cold	**sf** instance	The instance name of Equinox	0
cold	**host** host	The host address of ‘E03’	localhost
cold	**host** port	The port number of ‘E03’	20200
cold	**http** host	HTTP host address	localhost
cold	**http** port	HTTP port number	80
cold	**http** Header name	The configurable list of HTTP header name	-
cold	**http** Header value	The configurable list of HTTP header value	-
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	10
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	1
warm	MaxRetry	The maximum number of retrying on sending message to ‘E00’	0

Type	Name	Description	Default Value
warm	SFMessageTimeout value	The armed time out in second of message sent to ‘E00’	60
warm	SFMaxClient	Maximum client connected	1
warm	SFConnectTimeout	The armed connection timeout toward ‘E00’	10
warm	SFReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	5
warm	SFWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	SFACKTimeout	How much time in second that the acknowledgment of the peer has been lost	60
warm	SFWatchdogInterval	The time interval that the function checks the established connection of the peer	30
warm	SFMaxWriteLength	The maximum write buffer size of the function that will be put over the socket	0(unlimited)
warm	HttpMaxClient	The maximum http client connected to ES00 processs	1
warm	HttpConnectionTimeout	Time interval for connection loss status	10
warm	HttpReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	30

Type	Name	Description	Default Value
warm	HttpWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	HttpIdleTimeout	Time to idle state timeout.	30
warm	HttpMaxWriteLength	Limit of http write.	0
warm	HttpWaitTimeout	Waiting time out time.	60
warm	HighMessageCount	The number of 'in-queue' message that the function will consider to change from WORKING to PAUSE state	200000
warm	LowMessageCount	The number of 'in-queue' message that the function will consider to change from PAUSE to WORKING state	150000

ES03 Configuration

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
<cold>
<HomeDirectory value="/opt/equinox" />
<sf group="APP_NAME" service="SERV" instance="0">
<Host host="localhost" port="8676" />
</sf>
<ldap host="10.240.141.171" port="16611" baseDN="O=AIS,C=TH" username="cn=sdfrun"
password ="sdfrun1" />
</cold>
<warm>
<SFLOG value="FATAL|ERROR|WARN|INFO" />
<StatInterval value="10" />
<HousekeeperInterval value="10" />
<RestartDelay value="10" />
<MaxRetry value="1" />

<SFMessageTimeout value="60" />
<SFMaxClient value="1" />
<SFConnectTimeout value="10" />
<SFReadTimeout value="30" />
<SFWriteTimeout value="30" />
<SFACKTimeout value="60" />
<SFWatchdogInterval value="30" />
<SFMaxWriteLength value="0" />

<LdapMaxClient value="10" />
<LdapConnectTimeout value="10" />
<LdapWaitTimeout value="60" />
<LdapReadTimeout value="30" />
<LdapWriteTimeout value="30" />
<LdapMaxWriteLength value="0" />

<HighMessageCount value="200000" />
<LowMessageCount value="150000" />
<EDBTimeToWait value="10" />
</warm>
</configuration>
```

Type	Name	Description	Default Value
cold	HomeDirectory	A UNIX directory where all files and directories of VSCPBE reside in	/opt/equinox
cold	**sf** group	The application name of equinox	APP_NAME
cold	**sf** service	Service name of Equinox	0 :only
cold	**sf** instance	The instance name of Equinox	0
cold	**host** host	The host address of ‘E03’	localhost
cold	**host** port	The port number of ‘E03’	20200
cold	ldap host	The host address of ‘LDAP’	localhost
cold	ldap port	The port of ‘LDAP’	16611
cold	baseDN	Domain of LDAP service.	O=AIS,C=TH
cold	username	Username for authentication.	sdfrun
cold	password	Password for authentication.	sdfrun1
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	10
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	1
warm	MaxRetry	The maximum number of retrying on sending message to ‘E00’	0

Type	Name	Description	Default Value
warm	SFMessageTimeout value	The armed time out in second of message sent to ‘E00’	60
warm	SFMaxClient	Maximum client connected	1
warm	SFConnectTimeout	The armed connection timeout toward ‘E00’	10
warm	SFReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	5
warm	SFWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	SFACKTimeout	How much time in second that the acknowledgment of the peer has been lost	60
warm	SFWatchdogInterval	The time interval that the function checks the established connection of the peer	30
warm	SFMaxWriteLength	The maximum write buffer size of the function that will be put over the socket	0(unlimited)
warm	LdapMaxClient	Maximum client connect to server.	10
warm	LdapConncectionTimeout	Time out connection.	10
warm	LdapWaitTimeout	Waiting for time out.	60
warm	LdapReadTimeout	Time out for read.	30
warm	LdapWriteTimeout	Time out for write.	30

Type	Name	Description	Default Value
warm	LdapMaxWriteLength	Maximum write time out.	0
warm	HighMessageCount	Maximum message count.	200000
warm	LowMessageCount	Minimum message count.	150000
warm	EDBTimeTowait	EDB waiting time.	10

ES04 Configuration

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
<cold>
<HomeDirectory value="/opt/equinox" />
<sf group="APP_NAME" service="SERV" instance="0">
<Host host="localhost" port="20200" />
</sf>
<http host="localhost" port="9090" uri="/">
<Header name="Pragma" value="no-cache" />
<Header name="Accept" value="image/gif, image/x-xbitmap, image/jpeg, image/pjpeg, */*" />
<Header name="Content-Type" value="application/x-www-form-urlencoded" />
</http>
</cold>
<warm>
<SFLOG value="FATAL|ERROR|WARN|INFO" />
<StatInterval value="10" />
<HousekeeperInterval value="10" />
<RestartDelay value="10" />
<MaxRetry value="1" />
<SFMessageTimeout value="60" />
<SFMaxClient value="1" />
<SFConnectTimeout value="10" />
<SFReadTimeout value="30" />
<SFWriteTimeout value="30" />
<SFACKTimeout value="60" />
<SFWatchdogInterval value="30" />
<SFMaxWriteLength value="0" />
<HttpMaxClient value="10" />
<HttpConnectTimeout value="10" />
<HttpWaitTimeout value="60" />
<HttpReadTimeout value="30" />
<HttpWriteTimeout value="30" />
<HttpMaxWriteLength value="0" />
<HighMessageCount value="200000" />
<LowMessageCount value="150000" />
<HttpMaxRetryConnectionError value="10" />
<HttpReconnectInterval value="10" />
</warm>
</configuration>
```

Type	Name	Description	Default Value
cold	HomeDirectory	A UNIX directory where all files and directories of VSCPBE reside in	/opt/equinox
cold	**sf** group	The application name of equinox	APP_NAME
cold	**sf** service	Service name of Equinox	0 :only
cold	**sf** instance	The instance name of Equinox	0
cold	**host** host	The host address of ‘E03’	localhost
cold	**host** port	The port number of ‘E03’	20200
cold	**http** host	HTTP host address	localhost
cold	**http** port	HTTP port number	80
cold	**http** Header name	The configurable list of HTTP header name	-
cold	**http** Header value	The configurable list of HTTP header value	-
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	10
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	1
warm	MaxRetry	The maximum number of retrying on sending message to ‘E00’	0

Type	Name	Description	Default Value
warm	SFMessageTimeout value	The armed time out in second of message sent to ‘E00’	60
warm	SFMaxClient	Maximum client connected	1
warm	SFConnectTimeout	The armed connection timeout toward ‘E00’	10
warm	SFReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	5
warm	SFWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	SFACKTimeout	How much time in second that the acknowledgment of the peer has been lost	60
warm	SFWatchdogInterval	The time interval that the function checks the established connection of the peer	30
warm	SFMaxWriteLength	The maximum write buffer size of the function that will be put over the socket	0(unlimited)
warm	HttpMaxClient	The maximum http client connected to ES00 processs	1
warm	HttpConnectionTimeout	Time interval for connection loss status	10
warm	HttpReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	30

Type	Name	Description	Default Value
warm	HttpWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	HttpIdleTimeout	Time to idle state timeout.	30
warm	HttpMaxWriteLength	Limit of http write.	0
warm	HttpWaitTimeout	Waiting time out time.	60
warm	HighMessageCount	The number of ‘in-queue’ message that the function will consider to change from WORKING to PAUSE state	200000
warm	LowMessageCount	The number of ‘in-queue’ message that the function will consider to change from PAUSE to WORKING state	150000
warm	HttpMaxRetryConnection Error	Retry to connect ,when http host has connection error.	10
warm	HttpReconnectInterval	Time interval for reconnect to HTTP host.	10

ES05 Configuration

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
<cold>
        <HomeDirectory value="/opt/equinox" />
        <sf group="APP_NAME" service="SERV" instance="0">
        <Host host="localhost" port="8676" />
        </sf>
        <httpd ip="0.0.0.0" port="9090" backlog="256" />
        <correlation library="default" name="libcorrelate.so" function="extract_correlate"/>
        </cold>
        <warm>
                <SFLOG value="FATAL|ERROR|WARN|INFO" />
                <StatInterval value="10" />
                <HousekeeperInterval value="10" />
                <RestartDelay value="1" />
                <MaxRetry value="0" />
                <E11ScaleNumber value="1" />
                <EDBTimeToWait value="10" />

                <SFMessageTimeout value="5" />
                <SFMaxClient value="1" />
                <SFConnectTimeout value="10" />
                <SFReadTimeout value="5" />
                <SFWriteTimeout value="30" />
                <SFACKTimeout value="60" />
                <SFWatchdogInterval value="30" />
                <SFMaxWriteLength value="0" />
                <SFHighMessageCount value="20000" />
                <SFLowMessageCount value="15000" />

                <HttpMaxSession value="200" />
                <HttpReadTimeout value="5" />
                <HttpWriteTimeout value="5" />
                <HttpIdleTimeout value="30" />
                <HttpMaxWriteLength value="0" />
                <DelayProcessing value="6000" />
                <TPSLimit value="1000" />
                <TPSWindow value="1" />

        </warm>
</configuration>
```

Type	Name	Description	Default Value
cold	HomeDirectory	A UNIX directory where all files and directories of VSCPBE reside in	/opt/equinox
cold	**sf** group	The application name of equinox	APP_NAME
cold	**sf** service	Service name of Equinox	0 :only
cold	**sf** instance	The instance name of Equinox	0
cold	**host** host	The host address of ‘E03’	localhost
cold	**host** port	The port number of ‘E03’	20200
cold	**httpd** host	HTTP host address	localhost
cold	**httpd** port	HTTP port number	80
cold	**httpd** backlog	The ‘sync’ backlog of resource adaptor	256
cold	**http** Header name	The configurable list of HTTP header name	-
cold	**correlation** library	Mode of correlation	default
cold	**correlation** name	Name of correlation file	libcorrelate.so
cold	**correlation** function	Call function of correlation	extract_correlate
cold	**http** Header value	The configurable list of HTTP header value	-
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10

Type	Name	Description	Default Value
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	10
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	1
warm	MaxRetry	The maximum number of retrying on sending message to ‘E00’	0
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	10
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	1
warm	MaxRetry	The maximum number of retrying on sending message to ‘E00’	0
warm	SFMessageTimeout value	The armed time out in second of message sent to ‘E00’	60
warm	SFMaxClient	Maximum client connected	1
warm	SFConnectTimeout	The armed connection timeout toward ‘E00’	10
warm	SFReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	5

Type	Name	Description	Default Value
warm	SFWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	SFACKTimeout	How much time in second that the acknowledgment of the peer has been lost	60
warm	SFWatchdogInterval	The time interval that the function checks the established connection of the peer	30
warm	SFMaxWriteLength	The maximum write buffer size of the function that will be put over the socket	0(unlimited)
warm	SFHighMessageCount	The maximum counter of message	20000
warm	SFLowMessageCount	The minimum counter of message	15000
warm	HttpMaxSession	The maximum session of http.	1
warm	HttpConnectionTimeout	Time interval for connection loss status	10
warm	HttpReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	30
warm	HttpWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	HttpIdleTimeout	Time to idle state timeout.	30
warm	HttpMaxWriteLength	Limit of http write.	0

Type	Name	Description	Default Value
warm	DelayProcessing	Delay time of processing.	6000
warm	TPSLimit	Limit amount of TPS.	1000
warm	TPSWindow	Precision of separate time.	1

ES06 Configuration

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
<cold>
<HomeDirectory value="/opt/equinox" />
<sf group="APP_NAME" service="SERV" instance="0">
<Host host="localhost" port="20200" />
</sf>
        <correlation library="default" name="libcorrelate.so" function="extract_correlate"/>
<diameter host="127.0.0.1" port="3868" dictionary="ES06.dict" org_host="limelight"
org_realm="toro.ais.co.th" ip="172.16.57.53" app="4" vendor="AIS" product="vscp" />
</cold>
<warm>
<SFLOG value="FATAL|ERROR|WARN|INFO" />
<StatInterval value="10" />
<HousekeeperInterval value="10" />
<RestartDelay value="10" />
<MaxRetry value="1" />
<E11ScaleNumber value="1" />
<EDBTimeToWait value="10" />

<SFMessageTimeout value="60" />
<SFMaxClient value="1" />
<SFConnectTimeout value="10" />
<SFReadTimeout value="30" />
<SFWriteTimeout value="30" />
<SFACKTimeout value="60" />
<SFWatchdogInterval value="30" />
<SFMaxWriteLength value="0" />
<SFHighMessageCount value="200000" />
<SFLowMessageCount value="150000" />

<DiameterMaxClient value="10" />
<DiameterConnectTimeout value="10" />
<DiameterWaitTimeout value="60" />
<DiameterReadTimeout value="30" />
<DiameterWriteTimeout value="30" />
<DiameterMaxWriteLength value="0" />
<DiameterWatchdogInterval value="30" />
<DiameterEventTimeout value="30" />
<DiameterAnswerTimeout value="30" />
```

```
<SmoothReject value="0" />
<TPSLimit value="1000" />
<TPSWindow value="1" />
<RejectResultCode value="3004" />

</warm>
</configuration>
```

Type	Name	Description	Default Value
cold	HomeDirectory	A UNIX directory where all files and directories of VSCPBE reside in	/opt/equinox
cold	**sf** group	The application name of equinox	APP_NAME
cold	**sf** service	Service name of Equinox	0 :only
cold	**sf** instance	The instance name of Equinox	0
cold	**host** host	The host address of ‘E03’	localhost
cold	**host** port	The port number of ‘E03’	20200
cold	**correlation** library	Mode of correlation	default
cold	**correlation** name	Name of correlation file	libcorrelate.so
cold	**correlation** function	Call function of correlation	extract_correlate
cold	**diameter** host	Diameter connected host	127.0.0.1
cold	**diameter** port	Diameter connected port	3868
cold	**diameter** dictionary	Diameter connected dictionary	E11.dict
cold	**diameter** org_host	Diameter connected org_host	localhost
cold	**diameter** org_relm	Diameter connected org_relm	toro.ais.co.th
cold	**diameter** ip	Diameter connected ip	127.0.0.1
cold	**diameter** app	Diameter connected app	4
cold	**diameter**vendor	Diameter connected vender	AIS
cold	**diameter** product	Diameter connected product	equinox

Type	Name	Description	Default Value
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	10
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	1
warm	MaxRetry	The maximum number of retrying on sending message to ‘E00’	0
warm	E11ScaleNumber	Scale number of E11	1
warm	EDBTimeToWait	EDB waiting time.	10
warm	SFMessageTimeout value	The armed time out in second of message sent to ‘E00’	60
warm	SFMaxClient	Maximum client connected	1
warm	SFConnectTimeout	The armed connection timeout toward ‘E00’	10
warm	SFReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	5
warm	SFWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	SFACKTimeout	How much time in second that the acknowledgment of the peer has been lost	60

Type	Name	Description	Default Value
warm	SFWatchdogInterval	The time interval that the function checks the established connection of the peer	30
warm	SFMaxWriteLength	The maximum write buffer size of the function that will be put over the socket	0(unlimited)
warm	SFHighMessageCount	The maximum message count.	200000
warm	SFLowMessageCount	The minimum message count.	150000
warm	DiameterMaxClient	The maximum number of sockets that can be connected to DIAMETER server	10
warm	DiameterConnectTimeout	The armed connection timeout toward DIAMETER server	10
warm	DiameterWaitTimeout	How much time in second that the resource adaptor will wait DIAMETER for response	60
warm	DiameterReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	30
warm	DiameterWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	DiameterMaxWriteLength	The maximum write buffer size of the function that will be put over the socket towards DIAMETER server	0 (unlimited)

Type	Name	Description	Default Value
warm	DiameterWatchdogInterval	The time interval that the function checks the established connection of the DIAMETER peer	30
warm	DiameterEventTimeout	How much time in second that resource adaptor cannot send DWR	30
warm	DiameterAnswerTimeout	How much time in second that resource adaptor cannot receive DWA	30
warm	SmoothReject	Smooth reject	1
warm	TPSLimit	Limit amount of TPS.	1000
warm	TPSWindow	Precision of separate time.	1
warm	RejectResultCode	Reject status code	3004

ES07 Configuration

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
<cold>
<HomeDirectory value="/opt/equinox" />
<sf group="APP_NAME" service="SERV" instance="0">
<Host host="localhost" port="20200" />
</sf>
        <correlation library="default" name="libcorrelate.so" function="extract_correlate"/>
<dmp port="3868" dictionary="ES07.dict" org_host="vscpdp1" org_realm="toro.ais.co.th"
ip="127.0.0.1" vendor="AIS" product="vscp" />
</cold>
<warm>
<SFLOG value="FATAL|ERROR|WARN|INFO" />
<StatInterval value="10" />
<HousekeeperInterval value="10" />
<RestartDelay value="10" />
<MaxRetry value="1" />

<E11ScaleNumber value="1" />
<EDBTimeToWait value="10" />

<SFMessageTimeout value="60" />
<SFMaxClient value="1" />
<SFConnectTimeout value="10" />
<SFReadTimeout value="30" />
<SFWriteTimeout value="30" />
<SFACKTimeout value="60" />
<SFWatchdogInterval value="30" />
<SFMaxWriteLength value="0" />
<SFHighMessageCount value="10" />
<SFLowMessageCount value="5" />

<DMPMaxSession value="200" />
<DMPReadTimeout value="30" />
<DMPWriteTimeout value="30" />
<DMPEventTimeout value="30" />
<DMPMaxWriteLength value="0" />
<DMPWatchdogInterval value="30" />
```

```
<SmoothReject value="0" />
<TPSLimit value="1000" />
<TPSWindow value="1" />
<RejectResultCode value="3004" />

</warm>
</configuration>
```

Type	Name	Description	Default Value
cold	HomeDirectory	A UNIX directory where all files and directories of VSCPBE reside in	/opt/equinox
cold	**sf** group	The application name of equinox	APP_NAME
cold	**sf** service	Service name of Equinox	0 :only
cold	**sf** instance	The instance name of Equinox	0
cold	**host** host	The host address of ‘E03’	localhost
cold	**host** port	The port number of ‘E03’	20200
cold	**correlation** library	Mode of correlation	default
cold	**correlation** name	Name of correlation file	libcorrelate.so
cold	**correlation** function	Call function of correlation	extract_correlate
cold	**dmp** host	Diameter connected host	127.0.0.1
cold	**dmp** port	Diameter connected port	3868
cold	**dmp** dictionary	Diameter connected dictionary	E11.dict
cold	**dmp** org_host	Diameter connected org_host	localhost
cold	**dmp** org_relm	Diameter connected org_relm	toro.ais.co.th
cold	**dmp** ip	Diameter connected ip	127.0.0.1
cold	**dmp** app	Diameter connected app	4
cold	**dmp** vendor	Diameter connected vender	AIS
cold	**dmp** product	Diameter connected product	equinox

Type	Name	Description	Default Value
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	10
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	1
warm	MaxRetry	The maximum number of retrying on sending message to ‘E00’	0
warm	E11ScaleNumber	Scale number of E11	1
warm	EDBTimeToWait	EDB waiting time.	10
warm	SFMessageTimeout value	The armed time out in second of message sent to ‘E00’	60
warm	SFMaxClient	Maximum client connected	1
warm	SFConnectTimeout	The armed connection timeout toward ‘E00’	10
warm	SFReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	5
warm	SFWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	SFACKTimeout	How much time in second that the acknowledgment of the peer has been lost	60

Type	Name	Description	Default Value
warm	SFWatchdogInterval	The time interval that the function checks the established connection of the peer	30
warm	SFMaxWriteLength	The maximum write buffer size of the function that will be put over the socket	0(unlimited)
warm	SFHighMessageCount	The maximum message count.	200000
warm	SFLowMessageCount	The minimum message count.	150000
warm	DMPMaxSession	Maximum session connection.	200
warm	DMPReadTimeout	Read process timeout.	30
warm	DMPWriteTimeout	Write process timeout.	30
warm	DMPEventTimeout	Event process timeout.	30
warm	DMPMaxWriteLength	Maximum write length.	0
warm	DMPWatchdogInterval	Interval of watchdog.	30
warm	SmoothReject	Smooth reject	1
warm	TPSLimit	Limit amount of TPS.	1000
warm	TPSWindow	Precision of separate time.	1
warm	RejectResultCode	Reject status code	3004

ES13 Configuration

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
	<cold>
		<HomeDirectory value="/opt/equinox" />
		<sf group="APP_NAME" service="SERV" instance="0">
			<Host host="localhost" port="8676" />
		</sf>
		<ldap port="9400" backlog="256" username="sdfrun" password="sdfrun1"/>
		<correlation library="default" name="libcorrelate.so"
function="extract_correlate"/>
	</cold>
	<warm>
		<SFLOG value="FATAL|ERROR|WARN|INFO" />
		<StatInterval value="10" />
		<HousekeeperInterval value="10" />
		<RestartDelay value="10" />
		<E11ScaleNumber value="1" />
		<EDBTimeToWait value="10" />

		<SFMessageTimeout value="60" />
		<SFMaxClient value="1" />
		<SFConnectTimeout value="10" />
		<SFReadTimeout value="30" />
		<SFWriteTimeout value="30" />
		<SFACKTimeout value="60" />
		<SFWatchdogInterval value="30" />
		<SFMaxWriteLength value="0" />
		<SFHighMessageCount value="10000" />
		<SFLowMessageCount value="1000" />

		<LdapMaxSession value="200" />
		<LdapReadTimeout value="30" />
		<LdapWriteTimeout value="30" />
		<LdapIdleTimeout value="30" />
		<LdapMaxWriteLength value="0" />
		<TPSLimit value="1000" />
		<TPSWindow value="1" />

	</warm>
</configuration>
```

Type	Name	Description	Default Value
cold	HomeDirectory	A UNIX directory where all files and directories of VSCPBE reside in	/opt/equinox
cold	**sf** group	The application name of equinox	APP_NAME
cold	**sf** service	Service name of Equinox	0 :only
cold	**sf** instance	The instance name of Equinox	0
cold	**host** host	The host address of ‘E03’	localhost
cold	**host** port	The port number of ‘E03’	20200
cold	**ldap** port	The port of ‘LDAP’	16611
cold	**ldap** backlog	The ‘sync’ backlog of resource adaptor	256
cold	**ldap**username	Username for authentication.	sdfrun
cold	**ldap**password	Password for authentication.	sdfrun1
cold	**correlation** library	Mode of correlation	default
cold	**correlation** name	Name of correlation file	libcorrelate.so
cold	**correlation** function	Call function of correlation	extract_correlate
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	10
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	1

Type	Name	Description	Default Value
warm	E11ScaleNumber	Scale number of E11	1
warm	EDBTimeToWait	EDB waiting time.	10
warm	SFMessageTimeout value	The armed time out in second of message sent to 'E00'	60
warm	SFMaxClient	Maximum client connected	1
warm	SFConnectTimeout	The armed connection timeout toward 'E00'	10
warm	SFReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	5
warm	SFWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30
warm	SFACKTimeout	How much time in second that the acknowledgment of the peer has been lost	60
warm	SFWatchdogInterval	The time interval that the function checks the established connection of the peer	30
warm	SFMaxWriteLength	The maximum write buffer size of the function that will be put over the socket	0(unlimited)
warm	SFHighMessageCount	The maximum message count.	200000
warm	SFLowMessageCount	The minimum message count.	150000

Type	Name	Description	Default Value
warm	LdapMaxSesion	Maximum session	200
warm	LdapReadTimeout	Time out for read.	30
warm	LdapWriteTimeout	Time out for write.	30
warm	LdapIdleTimeout	Time out of idle state.	30
warm	LdapMaxWriteLength	Maximum write time out.	0
warm	TPSLimit	Limit amount of TPS.	1000
warm	TPSWindow	Precision of separate time.	1

EC00 Configuration

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
<cold>
<HomeDirectory value="/opt/equinox" />
<httpd ip="127.0.0.1" port="9999" backlog="256" />
<AFLibrary name="libaf.so" function="get_af_action_process"
configuration="af_config_load_warm" />
</cold>
<warm>
<SFLOG value="FATAL|ERROR|WARN|INFO" />
<StatInterval value="10" />
<HousekeeperInterval value="10" />
<RestartDelay value="10" />
<HttpMaxSession value="200" />
<HttpReadTimeout value="30" />
<HttpWriteTimeout value="30" />
<HttpMessageTimeout value="30" />
<HttpIdleTimeout value="30" />
<HttpMaxWriteLength value="0" />
</warm>
</configuration>
```

Type	Name	Description	Default Value
cold	HomeDirectory	A UNIX directory where all files and directories of EAS.	/opt/equinox
cold	**httpd** host	The IP address of Application Function	0.0.0.0
cold	**httpd** port	The listen port number of Application Function	9090
cold	**httpd** backlog	The 'sync' backlog of resource adaptor	256
cold	**AFLibrary** name	Name of AF library.	libaf.so
cold	**AFLibrary**function	Function of AF.	get_af_action_process
cold	**AFLibrary**configuration	Command in AF function.	af_config_load_warm
warm	SFLOG	The level of logging function.	FATAL|ERROR|WARN|INFO
warm	StatInterval	The time interval in second of statistical value flush.	10
warm	HousekeeperInterval	The time interval in second of housekeeper stop sleeping.	10
warm	RestartDelay	In the case of child crash, how much time in second that the parent will wait before spawning the child.	1
warm	HttpMaxSession	The maximum session of http.	1
warm	HttpReadTimeout	How much time in second that the expected read buffer cannot be retrieved from the established socket	30
warm	HttpWriteTimeout	How much time in second that the write buffer cannot be sent over the established socket	30

Type	Name	Description	Default Value
warm	HttpMessageTimeout	Message timeout.	30
warm	HttpIdleTimeout	Time to idle state timeout	30
warm	HttpMaxWriteLength	Limit of http write.	0

EC02 Configuration

- app.EC02.serv.ins

```
<?xml version="1.0" encoding="tis-620" ?>
<configuration>
  <cold>
    <HomeDirectory value="/opt/equinoxAS" />
    <Application group="app" service="serv" instance="ins" />
    <Listener port="4949" backlog="256"/>
    <Library directory="/opt/equinoxAS/lib/" name="App.jar" function="AppMain" />
    <ECProperties>
        <ThreadPool value="2" />
        <AutoCpuUtilize value="true"/>
        <CpuUtilizeList value="4,5,6,7,8,9,10,11,12,13,14,15,16"/>
        <JavaOption value="-server"/>
        <JavaOption value="-XX:CompileThreshold=1000"/>
        <JavaOption value="-XX:ThreadStackSize=65535"/>
        <JavaOption value="-XX:MainThreadStackSize=65535"/>
        <JavaOption value="-Xms1G"/>
        <JavaOption value="-Xmx1G"/>
        <JavaOption value="-
Djavax.xml.xpath.XPathFactory:http://java.sun.com/jaxp/xpath/dom=com.sun.org.apache.xpath.
internal.jaxp.XPathFactoryImpl"/>
        <JavaOption value="-Djava.version=1.6"/>
        <JavaLibrary value="ec02_library_V3.0.0.jar"/>
    </ECProperties>
  </cold>
  <warm>
    <SFLOG value="FATAL|ERROR|WARN|INFO" />
    <StatInterval value="2" />
    <HousekeeperInterval value="10" />
    <RestartDelay value="10" />

    <ServerMaxSession value="10" />
    <ServerReadTimeout value="30" />
    <ServerWriteTimeout value="30" />
    <ServerIdleTimeout value="30" />

  </warm>
</configuration>
```