DG Lawful Intercept Solution Suite

Product Marketing

Decision Group Inc.

2014

(for ETSI version)

Agenda

- **Lawful Intercept Operation**
- **DG LI Solution Suite**
  - iMediator
  - EDDM
  - iMonitor
  - iMedia Gateway
  - HTTPS Interceptor
- **Training Programs and Services**
- **Reference (2013)**
- **Conclusion**

Lawful Interception

❖ **Lawful Interception is the authorized operation of law enforcement authority taking on the telecom networks in the definite period for the purpose of crime investigation by the warrant order from court based on law**

❖ **There are 2 domains for LI deployment and operation based on ETSI standard:**

- Telecom service provider domain: target traffic intercept service with data access and delivery

- Law enforcement authority domain: data collection and law enforcement management facility (LEMF)

LI Framework
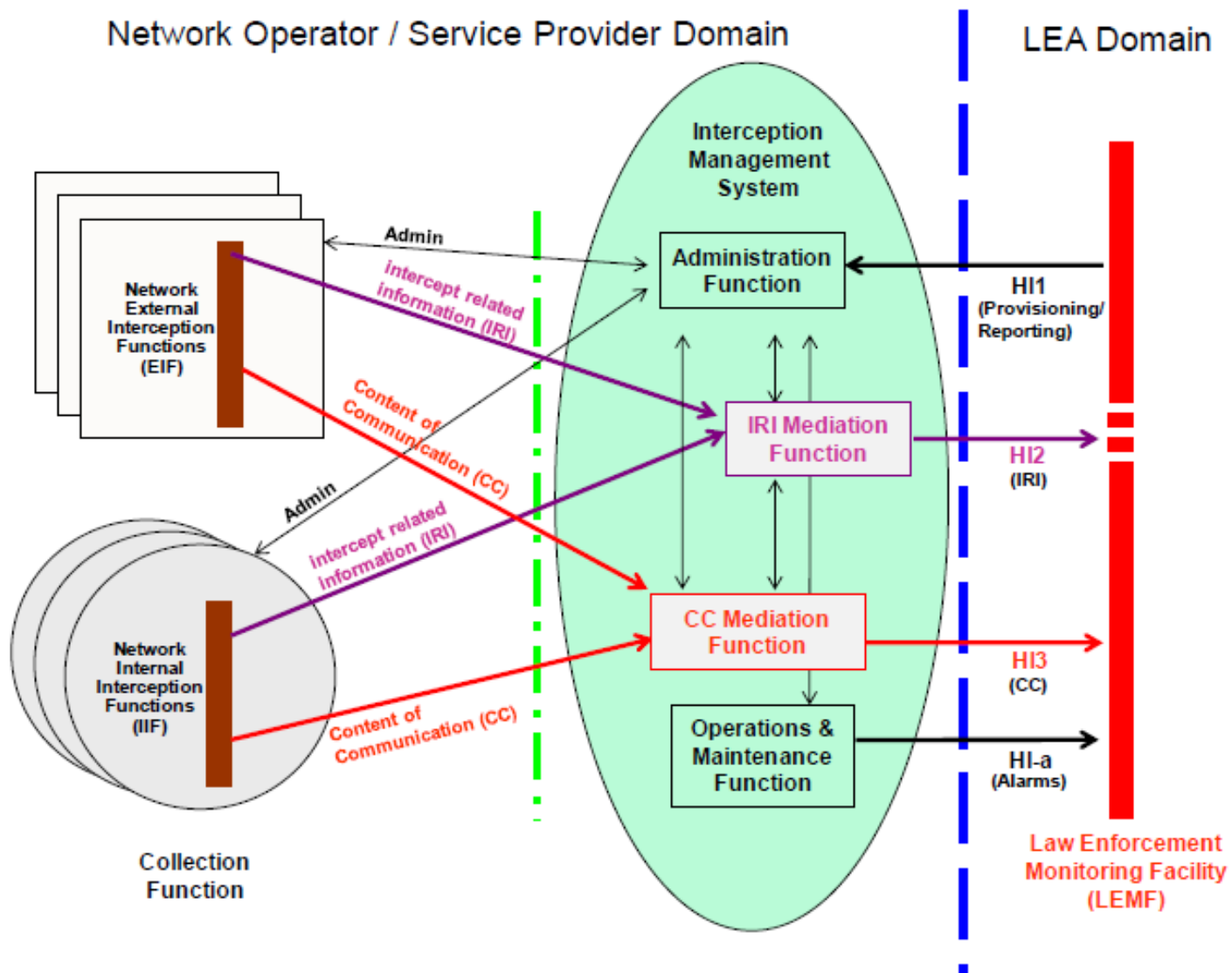
ETSI Compliance

➢ **ETSI ES 201 153 for Network Framework Definition,**

➢ **ETSI ES 201 671 for Handover Definition,**

➢ **ETSI TR 101 973 for Generic LI Network Requirement,**

➢ **ETSI TS 101 331 for Requirement of LEA,**

➢ **ETSI TS 101 671 for Handover Definition,**

➢ **ETSI TS 102 232-1 for Handover of IP Delivery,**

➢ **ETSI TS 102 232-2 for Handover of eMail Services,**

➢ **ETSI TS 102 232-3 for Handover of Internet Access,**

➢ **ETSI TS 102 232-4 for Handover of Layer 2 Services,**

➢ **ETSI TS 102 232-5 for Handover of IP Multimedia Services.**

➢ **3GPP TS 33.107 for Handover Definition of Mobile Network**

➢ **3GPP TS 33.108 for Handover of IP Delivery on Mobile Network**

DG LI Solutions

❖ ***iMediator*** **– for lawful interception operation as mediation platform**

❖ ***iMonitor*** **– for warrant administration process to TSP network center and monitoring system in LEA Monitoring Center**

❖ ***EDDM*** **– for lawful interception operation as content reconstruction**

❖ ***iMedia Gateway*** **– for lawful interception operation on circuit switch**

❖ ***HTTPS-Interceptor*** **– 2 types of HTTPS Interception Solution for LAN (forward proxy) and Telecom networks – ED2S (transparency proxy)**

iMediator

❖ **Works for data intercept based on warrant order and data delivery to LEA**

❖ **Provides Web Service calls for customer warrant management**

❖ **Decision Group provides customized service for new LI module interface in order to meet customer requirement**

❖ **The network interface (X) of iMediator to ISP network devices supports the below LI module interfaces–**

- Alcatel Lucent
- Juniper
- Ericsson
- Cisco
- …etc

iMonitor-EDDM

❖ **All data will be input and processed based on Case ID from iMonitor system**

❖ **FTP server and client services launched**

❖ **Data will be decoded, correlated and reconstructed based on protocol type**

❖ **Lawful Enforcement Management Utility**

- Data Scoping
- Full Text Search
- Primary Link Analysis

❖ **Functions Provided**

- System Parameter Configuration and Tuning
- Case Management
- User Authentication
- Backup and Archive Utilities
- Statistics of Lawful Interception Operation
- Upgrade and Update Task

iMonitor

- **Major function of iMonitor is to send the authorized information to iMediator for fulfillment of lawful interception operation**
- **Upon receiving IRI and CC data from iMediator, it will take action to correlate both data based on case ID**
- **iMonitor will send correlated data to EDDM for content reconstruction and data lookup**

- **DG iMonitor system is a prototype platform for client to customize based on state act or regulation and internal LEA procedure**
- **Decision Group also provides customized service to develop it for customer requirement**

iMedia Gateway

For Regular Lawful Interception

- ❖ As X3 or HI3 interface for reception of VoIP stream or SS7/ISUP

- ❖ Convert VoIP stream into voice file (wav format)

- ❖ Correlate SIP data with HI2 data by iMonitor

For Live Call Lawful Interception

- ❖ As X3 or HI3 interface for either VoIP stream or SS7/ISUP signaling stream

- ❖ Directly deliver to LEA Center for live call monitoring under iMonitor

- ❖ Output can be delivered by SS7/ISUP stream or SIP/RTP to LEA

- ❖ There are still 3-5 seconds voice delay due to processing

HTTPS Interception

❖ **HTTPS interception will be well performed by Decision Group ED2S Proxy System**

❖ **ED2S Proxy system will work by transparency way with edge router or PDN for HTTPS interception**

❖ **Features of System**

- ED2S must rely on mediation device for target provision

- ED2S, as a HTTPS proxy, is able to handle certificate(s) of single online HTTPS services

- ED2S can intercept HTTPS-based mobile APP services

Deployment Scheme/Fixed Network

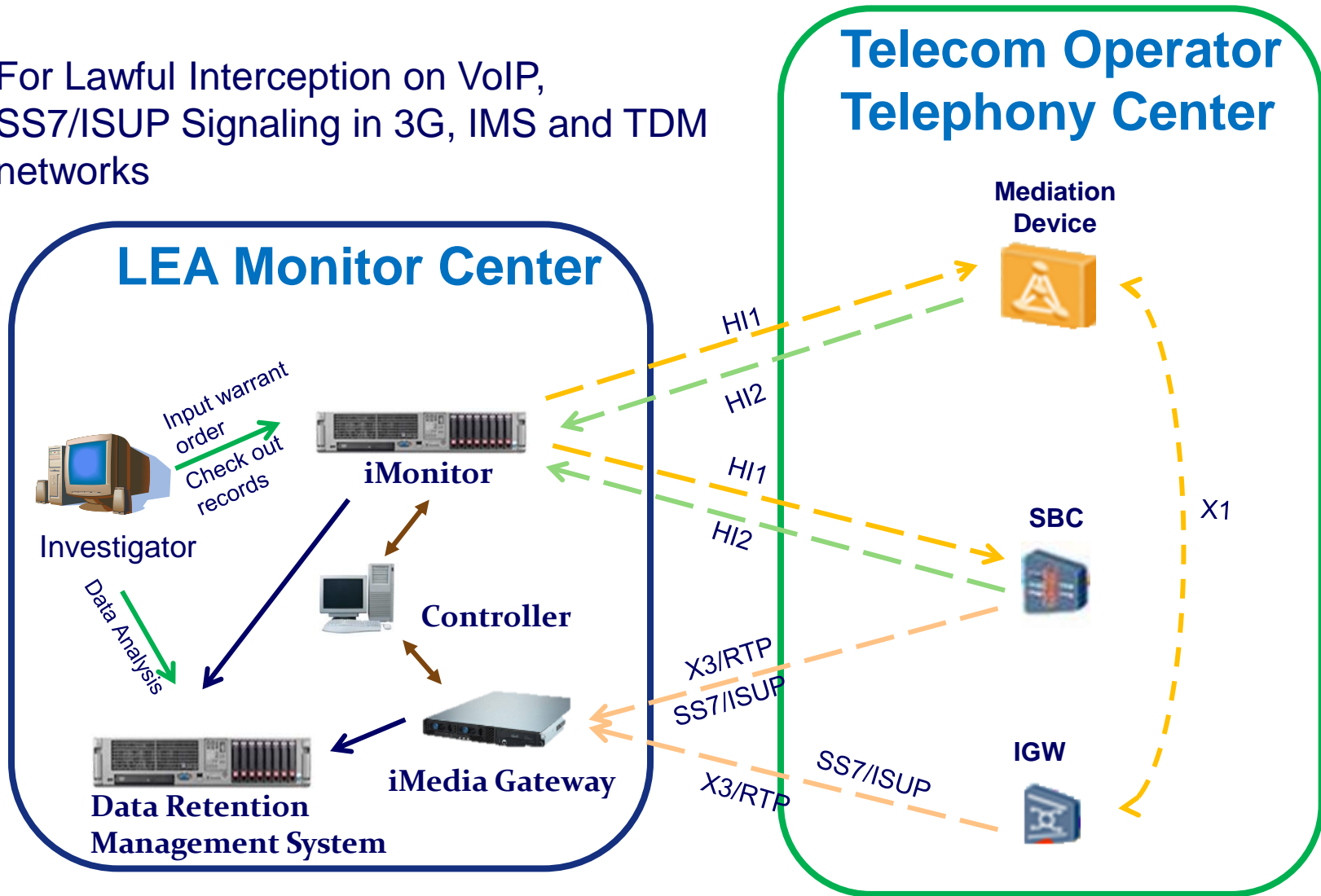*Process specified by sequence number
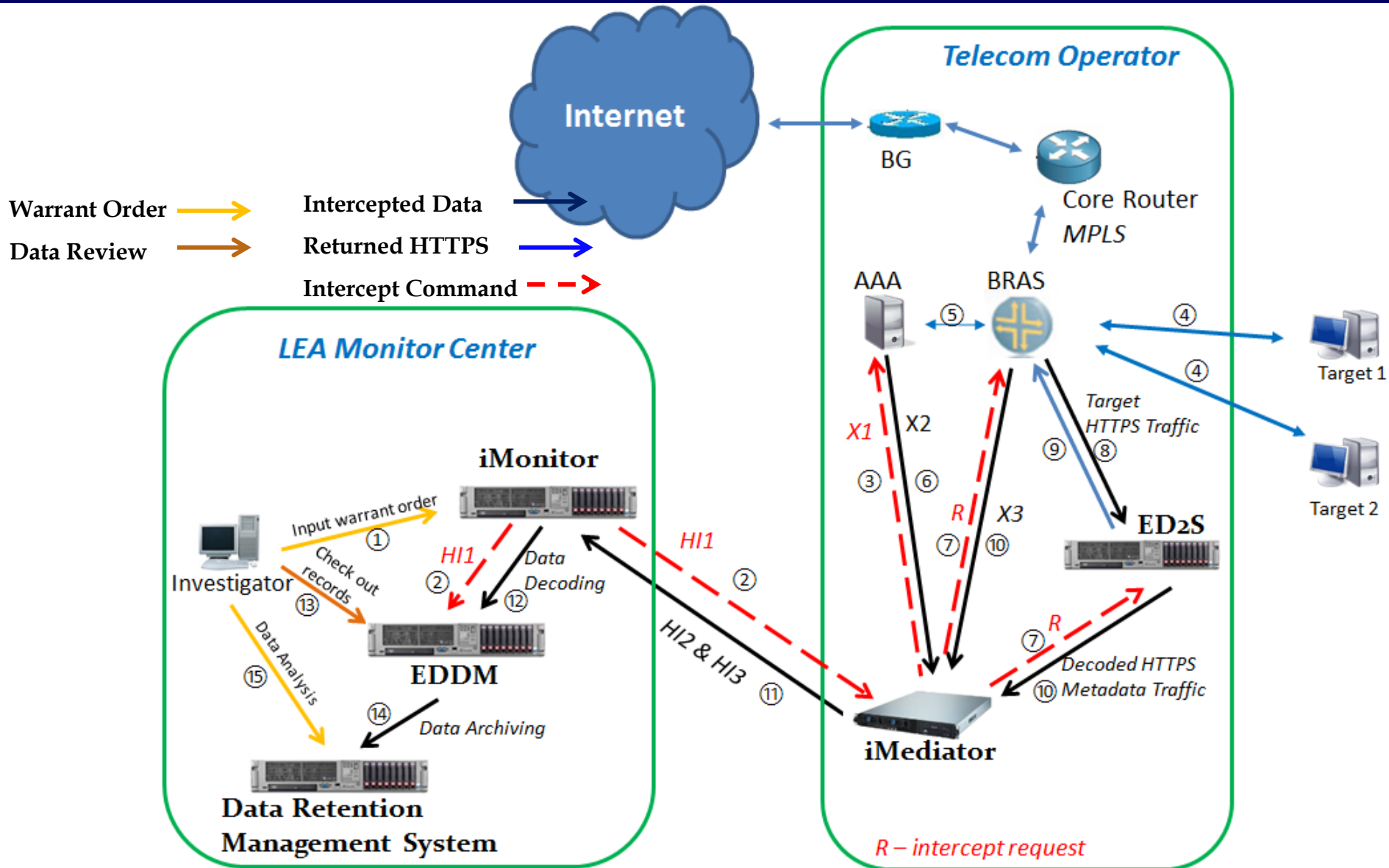
LI Network Scheme – Mobile Networks
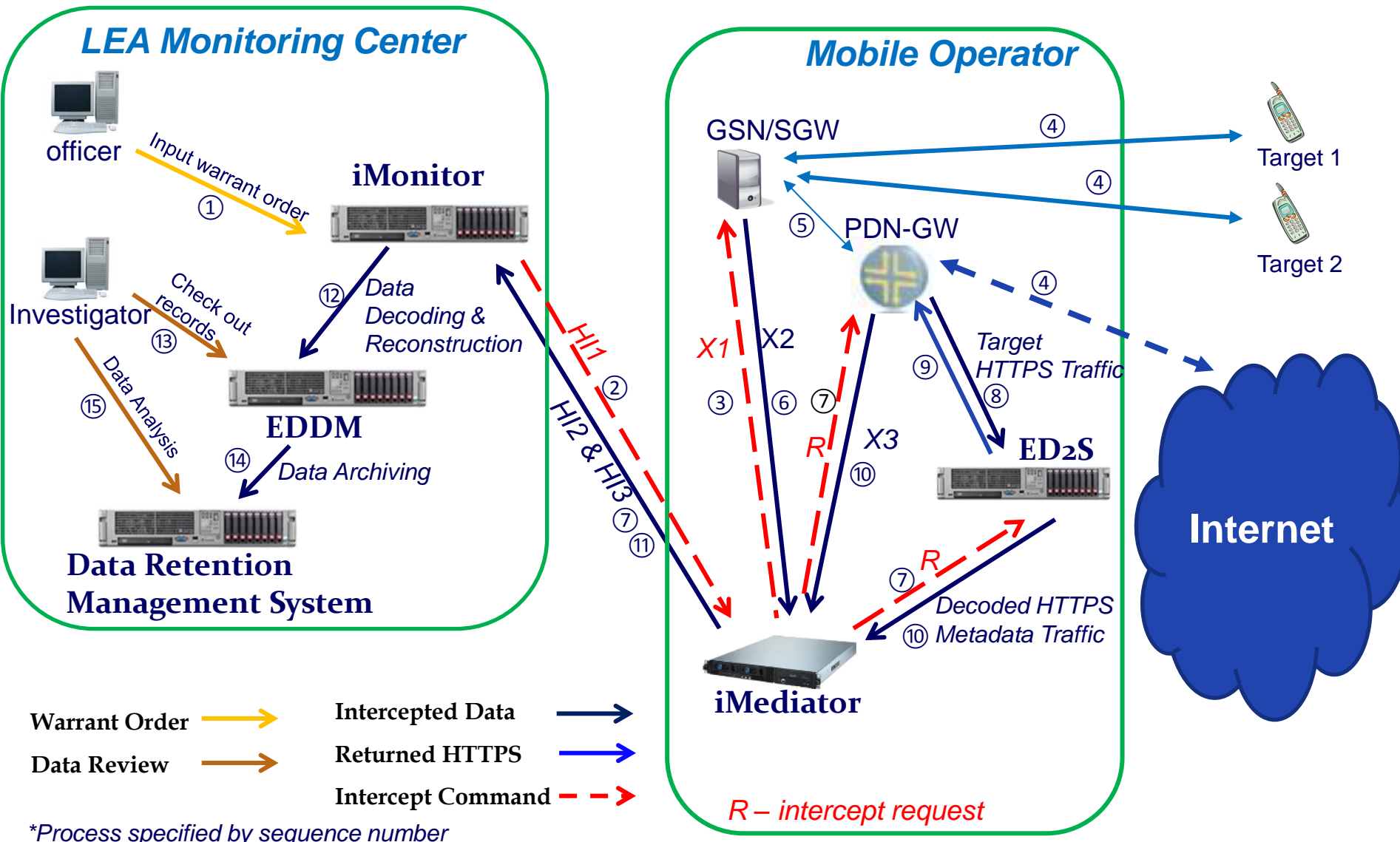
LI Network Scheme – CS Networks

For Lawful Interception on VoIP, SS7/ISUP Signaling in 3G, IMS and TDM networks

Telecom Operator Telephony Center

LEA Monitor Center

Mediation Device

Input warrant order

Check out records

iMonitor

Investigator

Data Analysis

Controller

SBC

HI1

HI2

HI1

HI2

X1

X3/RTP

SS7/ISUP

iMedia Gateway

Data Retention Management System

SS7/ISUP

X3/RTP

IGW

Advantages of DG LI Suite

- ❖ **Full Spectrum of Product Portfolio from Mediation Device to LEMF**

- ❖ **For LI on both Fixed and Mobile Networks**

- ❖ **Compliance with ETSI and 3GPP Standards**

- ❖ **Getting Target IRI and CC data from Telecom and Internet Service Providers**

- ❖ **Decoding 140+ protocols as well as 40 mobile protocols**

- ❖ **Handling HTTPS intercept and decoding**

- ❖ **Data retention capability for long term tracking and reporting**

- ❖ **Easy to deploy and manage with high security**

Flexible Interactive, Real-time Analysis, Adaptive Solution

Lawful Interception Training

Introduction to Lawful Interception

In order to keep up with fast-changing lawful interception technology on digital networks, we deliver the most updated content of LI framework, global standards, Decision Group LI solution suite and deployment methodology for LEA staffs, SI engineers, project managers and technical consultants.

Topic Includes

- Framework of Lawful Intercept
- ETSI and CALEA standard
- Deployment in different telecom networks
- Decision Group Lawful Intercept Solution Suite
- Data Analysis and Evidence Admissibility
- Case Study

Associated LI Training Programs

Network Packet Forensic Analysis Training

This 3 day course utilizes the knowledge of computer security concepts together with switched network topologies and gives students hands on practical exposure to critical knowledge base essential for network forensic investigation and analysis

Cyber Crime Investigation Training

In this 5 day course, several experienced speakers from National Taiwan Central Police University and Taiwan CIB will deliver the nature of cyber crime, investigation skills and the legal procedure on cyber criminal, digital data analysis, and participants can learn the lesson of real cases from experienced investigators and experts in panel discussion session.

What We Provide

❖ **Solid Consulting and Delivery Services:**

- Clear objectives
- Appropriate surveillance systems
- Vulnerability assessment
- Deployment plan
- Legal procedure
- Data analysis/text mining

❖ **Extensive Training Programs:**

- Train-the-trainer
- Law enforcement officials and prosecutors
- Administrators

❖ **Future Development Plan:**

- Technology update and upgrade
- Technical skill shift
- Integration with backend warrant and lawful interception data analysis system

Conclusion

❖ **Lawful Interception is fast-changing operation for both Telco and LEA because of emerging all IP telecom networks deployed.**

❖ **Decision Group has lot of Self-developing turnkey Solutions, Technologies, and Product Plan for requirement in current lawful interception demand.**

❖ **Fully meeting customer requirement and expectation is the top priority for Decision Group talented team**

❖ **Good references and globalized services in different countries**

URL: http://www.edecision4u.com
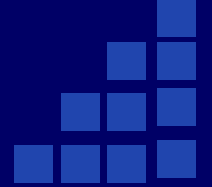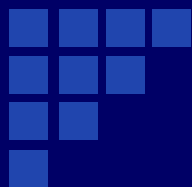
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Q & A

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