IOTA - IP Probes

FULL DECODE ■ LINEAR SCALABILITY ■ 100+ PROTOCOLS

IOTA Probes

TACTICAL
1Gbits/s capacity

LINEAR SCALABILITY

STRATEGIC
10Gbits/s capacity

SCALE-UP...

GLOBAL
Several Gateways
Multiple 10G links

APPLICATIONS

Integrated in a 1U solution the 1G Iota probe for Massive application (IOTA-1G-MA) and a Cerebro Intelligent BackEnd (CEREBRO-TGT) becomes a powerful tactical solution.
See the SMINT solution description for more detailed information.

Combine 10G Iota probes for LI and Data Retention (IOTA-10G-LR), several Gamma probes for L.I. and Data Retention (GAMMA-LR) with a central Cerebro BackEnd for data retention and targeting (CEREBRO-TGT and CEREBRO-DRS) to dispose of a full scope intelligence system at the scale of nation.
See the DRS solution description for more detailed information.

GENERAL DESCRIPTION

The IOTA product range has been designed to handle all applications based on IP network analysis. Any Internet input flow will be analysed and reconstructed into relevant information. Thanks to years of expertise in IP protocols and applications, Advanced Middle East Systems has developed a state-of-the-art modular intelligent IP probe.

IOTA products cover the needs for Lawful Interception (LI), Data Retention for ISPs with IPDR support (LR, Lawful Interception with IPDR) and Massive Surveillance (MA).

Each product has been integrated and is available for 1G and 10G network analysis as basic component. Each component can be stacked to each other in order to reach a global system with an extended coverage (n times 10Gbits/s).

CENTRALIZED OR MULTI-SITE SYSTEM

Thanks to its modularity, the IOTA probes can automatically adapt to several different network architecture. If dedicated optical backhauling links are available, IOTA probes will be the cornerstone of a centralized interception system. In other cases, IOTA probes can be distributed all over ISP premises to obtain a full coverage in decentralized architecture.

TARGETING CAPABILITIES

Advanced content-based targeting features are embedded in IOTA probes. The targeting engine is able to search for technical identifiers and keywords in the content of all the analyzed communications.

BUILT TO FIND RELEVANT INFORMATION

With more than 100 protocol decoders, IOTA probes are the perfect tools to understand IP networks. The full decoding engine is able to decode in real time all interpersonal communications (facebook, twitter, posted messages, webmails, VoIP conversations, etc.)

COMPLIANT WITH INTERNATIONAL STANDARDS

IOTA-LI probes are fully compliant with ETSI standards (102.232 for HI1, HI2 and HI3). Data Retention for communication metadata and contents (IOTA-LR and IOTA-MA) is using open standard (XML files) to ease any requested third-party integration.

ADVANCED
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	IOTA Probe 1Gbits/s Capacity	IOTA Probe 10Gbits/s Capacity
General Description	Appliance dedicated to reconstruct in real time interpersonal conversations and associated meta data analyzed on IP networks. **Operational benefits** • Full protocol classification • More than 100 protocols and applications classified and reconstructed • Enriched metadata - extracted from content • Embedded fail-over by design, ie each server has the exact same software and configuration • Linear scalability by design	
Environmental figures	• Gigabit Ethernet interface (10,100,1000 baseT) • 1U appliance • Less than 500 W power consumption • Capacity to handle 1 Gbits/s of traffic	• SFP / SFP+ interface • 10G Ethernet or Optical Fiber connection • 7U appliance • 3.5 kW power consumption • Capacity to handle up to 10Gbits/s
Lawful Interception (LI)	• Compliant to ETSI international standards • Intelligent content-based targeting • Possibility to target any identifiers and keywords	
	• Capacity to handle up to 50 simultaneous targets • *Reference: IOTA-1G-LI*	• Capacity to handle up to 1000 simultaneous targets • *Reference: IOTA-10G-LI*
Lawful Interception and Massive IPDR coverage (LR)	• Includes all the features of LI version • Generates a live flow of metadata (IPDR) • Output in proprietary optimized format or in standard XML for external compatibility • Cost effective solution for lawful interception combined with Data Retention on metadata	
	• *Reference: IOTA-1G-LR*	• *Reference: IOTA-10G-LR*
Massive Data Retention for IPDR and Communication Contents (MA)	• Full reconstruction of entire network flow • Includes all the features of the LC version • Output in proprietary optimized format or standard XML files for external compatibility • Each outputed file contains one interpersonal communication • Each file is standalone containing metadata and communication content • Dedicated for full scope Data Retention application	
	• *Reference: IOTA-1G-MA*	• *Reference: IOTA-10G-MA*

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