

CIRCL - Computer Incident Response Center Luxembourg

TRAINING AND TECHNICAL COURSES CATALOGUE 2017

from Incident Response to Operational Security

TLP:WHITE - version 201701



CIRCL
Computer Incident
Response Center
Luxembourg

INTRODUCTION

CIRCL offers courses to its members and organizations based in Luxembourg.

In their mission to improve information security, CIRCL is sharing its field experience through a set of training or technical courses. Due to diversity of competences within the team, CIRCL is able to provide a large diversity of information security trainings. Courses target technical experts but also non-technical staff in the topics of incident handling, malware analysis, operational security and system forensics.

CIRCL sees the trainings and technical course as a great opportunity to learn from their partners, too, and to improve the security handling procedures. By attending the courses, partners are not only helping their own organization but also the overall security in Luxembourg (i.e. it is beneficial for both the organization and CIRCL if the technical staff is prepared for Incident Response).

Courses can be held at CIRCL's training room or the premises of the organization unless specific requirements are noted.

Courses however have specific requirements in terms of technical equipment. These requirements are specified in the course description or will be specified before the course starts.

CIRCL provides these courses under tailored terms and conditions in order to fit your organizational structure. Don't hesitate to **Contact** us for more information.



CIRCL
Computer Incident
Response Center
Luxembourg

Contents

1	Introduction	2
2	Table of Content	3
3	Introduction to Incident Response	4
4	File-system post-mortem forensic analysis	5
5	Digital Privacy Salon	6
6	Introduction to Penetration Testing	7
7	Introduction to (Malware) Reverse Engineering	8
8	MISP Malware Information Sharing Platform - Threat Sharing	9
9	Training Materials Freely Available	10
10	Contact	11



CIRCL
Computer Incident
Response Center
Luxembourg

INTRODUCTION TO INCIDENT RESPONSE

Title	Introduction to Incident Response
Abstract	Incident detection and response introduction theory and practical examples from concrete incidents. The training includes an overview of the most common types of incidents encountered in Luxembourg.
Goals	How are the majority of security incidents detected - How to secure evidences after detecting an incident - How to perform acquisition of evidences (file-system, memory and network) - How to interact with local CERTs and/or international CERTs - How to balance remediation with incident response
Who	IT department staff and manager - Local Incident Response Team
Level	IT support - basic knowledge of operating systems is required
Duration	3 hours
Language	English, French, German or Luxembourgish



CIRCL
Computer Incident
Response Center
Luxembourg

FILE-SYSTEM POST-MORTEM FORENSIC ANALYSIS

Title	File-system Post Mortem Forensic Analysis
Abstract	<p>Forensic Analysis is based on the assumption that everything leaves a trace behind. A trace in an information system can be any data that helps to identify space and time actions. Post mortem analysis is a key tool to discover and analyse security incidents.</p> <p>This course will teach the participant on how to find answers to what has happened by analysing different layers from the physical medium, the file system up to application level.</p>
Goals	<ul style="list-style-type: none">- Perform disk acquisition the right way- Introduction to file system analysis (NTFS/FAT)- Analysis of operating system artifacts (MS Windows)- Find evidences in communication applications (e.g. browser or chat history)
Who	IT department staff - Local Incident Response Team
Level	Knowledge of operating systems and IT security is required
Duration	8 hours
Language	English, German



CIRCL
Computer Incident
Response Center
Luxembourg

DIGITAL PRIVACY SALON

Title	Digital privacy salon
Abstract	A digital privacy salon aims to present and explain how to use secure communication tools along with good Internet hygiene and understanding the associated risks.
Goals	Learning how to securely use: <ul style="list-style-type: none">- Browsers (e.g. HTTPS, plugins, passwords, tracking, phishing)- Instant messaging (e.g. OTR, Cryptocat)- Emails (e.g. virus, spam, encryption)- Mobile devices (e.g. tracking, secure communication)- Disk encryption (e.g. FileVault, Bitlocker, LUKS, truecrypt)- Online and offline exchange of data (e.g. USB, Sharing platforms)- Network encryption (e.g. VPN, Tor)
Who	Citizens using IT equipment
Level	Beginner
Duration	2 hours
Language	English, French, Luxembourgish, German



CIRCL
Computer Incident
Response Center
Luxembourg

INTRODUCTION TO PENETRATION TESTING

Title	Introduction to Penetration Testing
Abstract	<p>Besides classical security techniques like firewalls, VPN, Antivirus among many others, offensive security is also a mandatory ability nowadays. This course gives an overview on how attackers prepare and execute a targeted attack.</p> <p>APT - Advanced Persistent Threats turn into the most critical risk for companies today. This course will help the security responsible to see their corporate network from the attackers point of view and choose the necessary security mechanisms.</p>
Goals	Learn to attack your network before others do
Who	IT security teams and administrators
Level	Good level of IT security
Duration	8 hours
Language	English, German



CIRCL
Computer Incident
Response Center
Luxembourg

INTRODUCTION TO (MALWARE) REVERSE ENGINEERING



CIRCL
Computer Incident
Response Center
Luxembourg

Title	Introduction to (Malware) Reverse Engineering
Abstract	<p>It is not unusual to detect unknown software on computer systems. Identifying if the software is malicious or benign is a critical (and expensive) task. This course aims to develop skills to perform basic Malware Reverse Engineering.</p> <p>The goal of this course is to set up a malware laboratory for each student and to get introduced into the most successful malware reverse engineering strategies.</p>
Goals	<ul style="list-style-type: none">- Get an overview of malware analysis techniques- Create a custom lab environment- Be able to collect indicators if a file is malicious or benign- Develop strategies to collect Indicators of Compromise (IOCs)- Build-up some solid grounds for further studies
Not in scope	<ul style="list-style-type: none">- Learn x86 assembler- Get deep into reverse engineering
Who	Security Engineers, Administrators, Managers
Prerequisites	<ul style="list-style-type: none">- Linux/UNIX experience- Good knowledge of Windows internals- Knowledge about control flows in programming languages- Understanding of TCP/IP networks, DNS, proxy, firewall- Very basic x86 assembler understanding is an advantage
Duration	16 hours or 24 hours
Language	English, German

MISP MALWARE INFORMATION SHARING PLATFORM - THREAT SHARING



CIRCL
Computer Incident
Response Center
Luxembourg

Title	MISP Malware Information Sharing Platform - Threat Sharing
Abstract	<p>MISP is an advanced platform for sharing, storing and correlating Indicators of Compromise (IOCs) from attacks and cyber security threats. Today, MISP is used in numerous organizations to store, share, collaborate on malware, and also to use the IOCs to detect and prevent attacks. The aim of this trusted platform is to help improving the countermeasures used against targeted attacks and set up preventive actions. MISP becomes a full-feature information and threat sharing platform to support operational and tactical cyber security intelligence.</p> <p>The training will show the platform, its functionalities and demonstrate how to benefit most from sharing, commenting and contributing on it. At the end of the day, every participant will be knowledgeable in information sharing about cyber security threats and become a proficient MISP user and threat intel handler.</p>
Sections	<ul style="list-style-type: none">- (3 hours) MISP usage and how it can be used to support your operational cyber security intelligence. A practical overview of MISP and how to use it from a user perspective.- (3 hours) MISP interfaces and API. How to use and extend MISP to support your information security operational teams using programmatic interfaces.
Who	Security Engineers, ICT Administrators, Analysts
Prerequisites	- Good knowledge of information security fundamentals.
Duration	6:00
Language	English

TRAINING MATERIALS FREELY AVAILABLE

Title	Training Materials Freely Available
Background	<p>At CIRCL, we create trainings in order to improve the state of information security in Luxembourg and abroad.</p> <p>We strongly believe that sharing the training materials can significantly help organizations, private companies and training centers to improve the overall shape in IT security. Reusing our material is strongly encouraged.</p> <p>This is the reason why we publish a significant part of our trainings including slides and additional material.</p>
Available materials	
MISP	https://www.circl.lu/services/misp-training-materials/
Penetration testing	https://www.circl.lu/services/pentest-training-materials/



CIRCL
Computer Incident
Response Center
Luxembourg

CONTACT

Postal Address

CIRCL - Computer Incident Response Center Luxembourg
c/o "security made in Letzebuerg" (SMILE) g.i.e.
41, avenue de la gare
L-1611 Luxembourg
Grand-Duchy of Luxembourg

Telephone

(+352) 247 88444

Email

info@circl.lu

PGP Fingerprint: CA57 2205 C002 4E06 BA70 BE89 EAAD CFFC 22BD 4CD5



CIRCL
Computer Incident
Response Center
Luxembourg