



## Solarwinds Training Standard, Pro & Expert



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### INTRODUCTION

#### Your needs :

- ⇒ **Install** a network monitoring solution.
- ⇒ **Check** the efficiency of the monitoring in place.
- ⇒ **Consolidate** your knowledge of the product.

#### We provide :

- ⇒ **Customized trainings** regards your environment.
- ⇒ **Project management** proven in multiple companies.
- ⇒ **An interactive training** with the establishment of a model by yourself with the help of the trainer.

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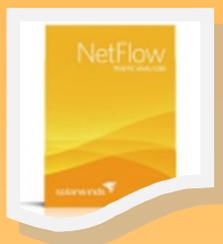
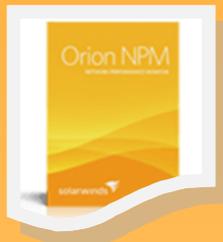


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## Solarwinds Training

Orsenna provides you the best training concerning Monitoring, according to your profile and your needs.



Titre	Profil
Manager	Standard / Pro
Installer	Pro / Expert
Network Administrator	Expert
System Administrator	Expert
Level 1 Technician	Standard
Level 2 Technician	Pro / Expert

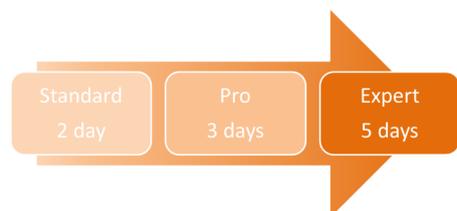
The training can be done in French or English.

### Offers

\* The **Standard** Training (2 days) will provide you an overview of the characteristics and advantages of the product that you can use concerning the environment you monitor.

\* The **Pro** Training (3 days) starts by giving you a precise understanding of the protocol SNMP (Simple Network Management Protocol) and the other protocols used in monitoring (WMI, NRPE, JMX, ..). This training will give you an overview of the product and the elements around. With the lab, the students will be able to practice strongly and customize the NMS.

\* The **Expert** Training (5 Days) is recommended to the people looking for special skills and knowledge in the monitoring field. Every step of the product will be treated, starting from the SNMP Protocol, until the analysis of the traffic and the customization of monitors. Depending on the modules chosen, we will take some time to analyze the Customer NMS.



\* **Public Training** (3 Days) This course enables students from different companies to utilize the features and functionality of their system to gain maximum advantage of monitoring and managing their network environment.

## Solarwinds Training

### The locations

- \* Our Training Center : Our training site provides everything that we need to monitor network devices, servers, applications. You are welcome here to receive the best training (Max 5 Participants).
- \* On-Site : This training can be customized based on the skills of the students. On demand, we can use the customer environment instead of our lab. (Max 5 Attendees).
- \* Remotely : Training with remote sessions to our environment or to yours. It allows to decrease significantly the costs. This training can also be customized to your needs.

### Offer per Profile

You can choose between different modules the training that you prefer.

	Monitoring Overview	Orion	NCM	SAM	VoIP + WPM	NTA + IPAM + UDT + NTM	VMAN + SRM	Practice	Exam
Modules	A	B	C	D	E	F	G	H	I
Duration	2h	10h	6h	6h	3h	6h	3h	6H	3H
Theory	X			X					
Theory + Practice		X	X		X	X	X	X	
Participants from the <b>same</b> Company									
Standard (2d) Modules AB (~12h)	X	X							
Pro (3d) Modules AB + 1 Add-on or Practive	X	X	+ 1 module « Plugin », « Practice », « Exam » (depends on the duration)						
Expert (5d) Modules AB + 3 Add-on or Practive	X	X	+ 3 modules « Plugin », « Practice », « Exam » (depends on the duration)						
Participants from <b>different</b> Companies									
<b>Public Training (3d)</b> Modules AB	X	X	+ 1 module 6h or 2 modules 3h						

**NB** : The training can't accept more than **5 attendees** to keep the quality of the course.

If you need to practice on the software, we provide you in some modules this opportunity.

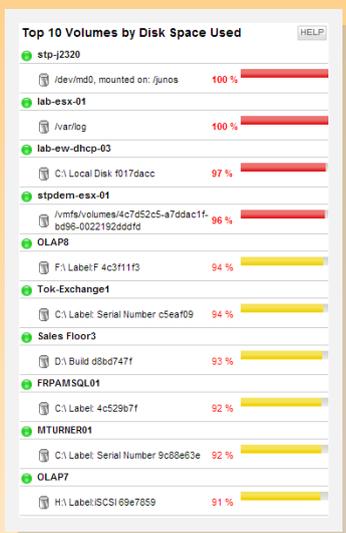
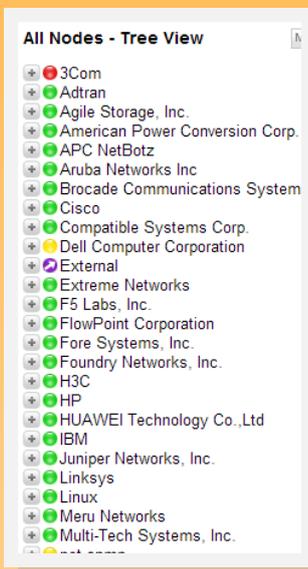
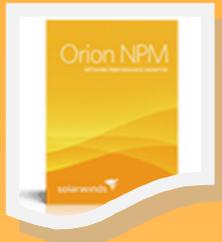
Here is an example of the training :

- \* Monitoring Overview (A)
- \* Orion (B)
- \* SAM (D) ==> Only theory.
- \* 2 Practice Modules

**Example Training duration is 5 days .**

# Solarwinds Training

## Training Content :



### ⇒ Overview of the monitoring (A)

- The market of Monitoring.
- Protocols related to monitoring :
  - SNMP
  - WMI
  - Syslog
  - Trap SNMP
  - Netflow
  - IPSLA...
- Project study & integration

### ⇒ Orion (B)

This part is common to NPM and some plugins.

- Validation Prerequisites.
- Definition of network objects.
- Discovery of equipments (Device Roles, Types).
- Monitor Network and System Devices.
- Device and Group Management
- Switching and Routing devices integration + monitors.
  - CPU.
  - Memory.
  - Hardware Status (Power, FAN, Temperature...).
  - Interface Status.
  - Interface Utilization.
- Universal Device Poller.
  - Customized Monitors (STP, HSRP...)
- Operation with OID.

# Solarwinds Training

## Training Content:

### ⇒ Orion (B) - Next

- System devices integration + monitors :
  - CPU.
  - Disk
  - Memory.
  - Hardware Status (Power, FAN, Temperature...).
  - Windows Services and Process.
  - Compute SNMP Values.

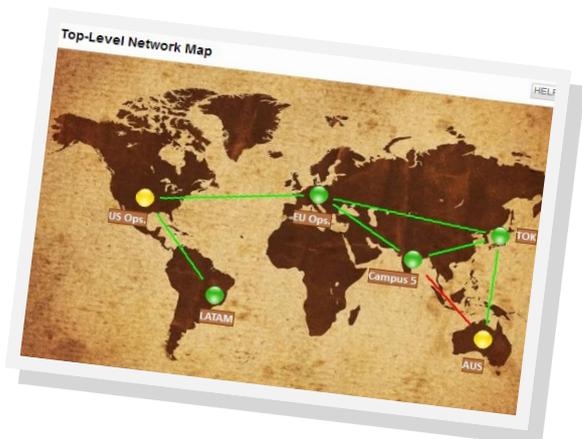
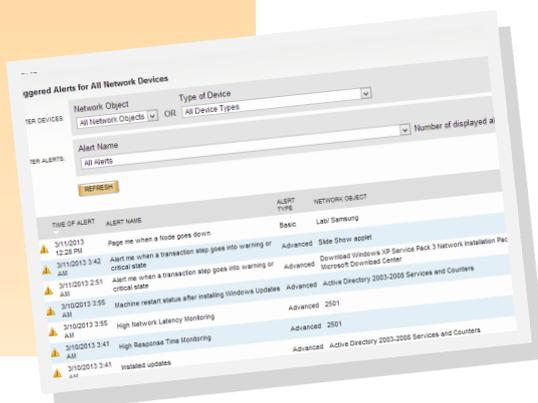
- Virtualization
  - Integrate VmWare / HyperV
  - Hardware status for ESX.
  - Values analysis.

- Reports.
- Database maintenance.
- Events management (Traps Snmp, Syslog).
- Alerts and notifications.
- Settings & Web customization.
- Maps.

- Installation & Configuration of Kiwi Syslog Server
  - Utilization of Kiwi Syslog.
  - Rules.
  - Filters.
    - Text Filter.
    - IP Address Filter.
    - Criticality Filter...
- Actions.
  - Send critical message to Orion.
  - Save all the events.
  - Display events by types...



INTERFACE	RECEIVE	TRANSMIT
NPI_Cisco_FibreChannel		
vswan1 - RFC interface - vswan1	63 %	100 %
fc117	63 %	91 %
fc110	62 %	91 %
fc114	63 %	76 %
fc119	64 %	71 %
fc113	62 %	73 %
fc112	62 %	72 %
fc115	65 %	67 %
fc111	62 %	67 %
fc114	67 %	62 %
fc118	62 %	67 %
fc111	62 %	67 %
sup-100	62 %	67 %
fc119	73 %	54 %
fc117	12 %	100 %
fc116	6 %	79 %
fc120	11 %	74 %
fc116	7 %	71 %



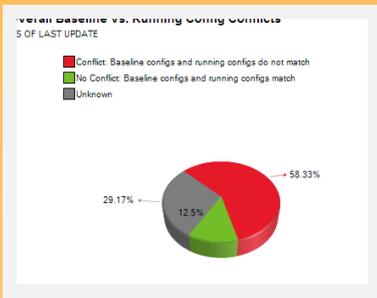
# Solarwinds Training

## Training Content:

### ⇒ Add-ons (C) - Network Configuration Manager



- NCM (Network Performance Monitor):
  - Device Discovery.
  - Prerequisites (Backup / Upgrade)
  - Scheduled Tasks :
    - Backup
    - Inventory
    - Compliance Policies
  - Create Compliance Reports.
  - Compare configurations.
  - Alert Management.
  - Specific scripting on devices.
  - Manager Rights.
  - Template management (Device Type)
  - Web and Normal Console utilization.
  - Real time detection.



### NCM Node List

GROUPED BY VENDOR

- Adtran
- Brocade Communications Systems, Inc.
- Cisco
- Dell Computer Corporation
- Extreme Networks
- HP
- Juniper Networks, Inc.
- Linksys
- Synoptics

### Policy Violations

NAME	INFO	WARN	CRITICAL
Cisco Policy Report	2	5	1
SOX Security Report	1	1	0
HIPAA Security Report	0	1	0
CISP Reports	0	1	0

### Last 5 Config Changes

NODE NAME	DATE TIME	Action
Syd-Ext3808	3/10/2013 2:01:12 AM	View Change Report
Bas-2621.aus.lab	3/10/2013 2:01:12 AM	View Change Report
Syd-2621.aus.lab	3/10/2013 2:01:12 AM	View Change Report
Syd-Ext3808	3/9/2013 2:01:33 AM	View Change Report
Bas-2621.aus.lab	3/9/2013 2:01:33 AM	View Change Report

### Pending Approval List

USERNAME	REQUEST TYPE	Target Node(s)	DATE TIME
thomasv	Execute Script	(12) Nodes	
thomasv	Upload Config	(1) Node	11/22/2011 02:27 AM
thomasv	Execute Config Change Template	(3) Nodes	11/22/2011 02:32 AM
pavelp	Execute Config Change Template	(1) Node	11/22/2011 03:09 AM
pavelp	Execute Script	(1) Node	11/22/2011 03:18 AM

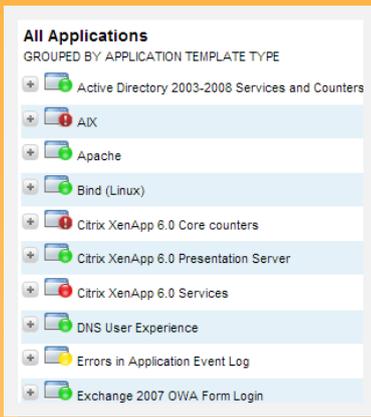
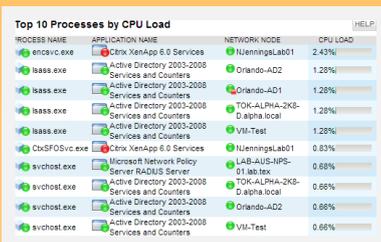
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# Solarwinds Training

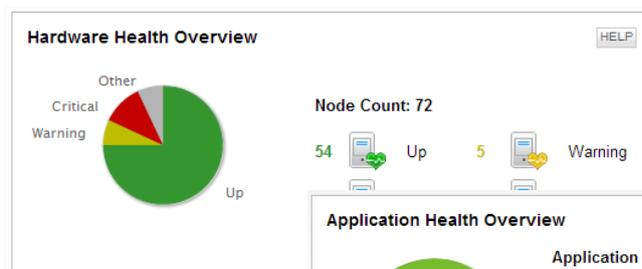
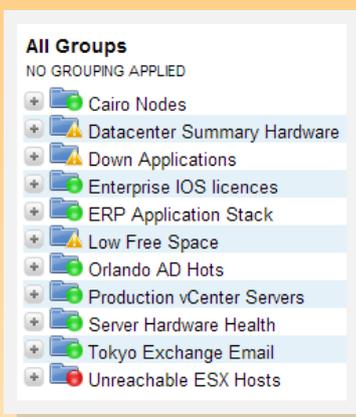
## Training Content:

### ⇒ Add-ons (D) - Application Monitoring

- SAM (Application & Server Management):
  - Windows & Linux Basic Monitoring :
    - Services
    - Processes
    - SSH
    - VMWare
    - Java JMX...
  - Application Profiles/Templates
    - Create a « template »
    - Add « components »
    - Importing « template »
  - Usage of predefined templates :
    - Databases (Oracle, MySQL, MSSQL...)
    - DHCP
    - DNS
    - Citrix
    - IIS
    - Exchange....
  - Windows Event logs.
  - View and Alert Customization.
  - VMWare / HyperV status.
  - Hardware status.
  - Business Group.
  - Reports.

PROCESS NAME	APPLICATION NAME	NETWORK NODE	CPU LOAD
encvnc.exe	Citrix XenApp 6.0 Services	MienningsLab01	2.43%
lsass.exe	Active Directory 2003-2008 Services and Counters	Orlando-AD2	1.28%
lsass.exe	Active Directory 2003-2008 Services and Counters	Orlando-AD1	1.28%
lsass.exe	Active Directory 2003-2008 Services and Counters	TOK-ALPHA-2KB-D.alpha.local	1.28%
lsass.exe	Active Directory 2003-2008 Services and Counters	VMI-Test	1.28%
ChSFOSvc.exe	Citrix XenApp 6.0 Services	MienningsLab01	0.83%
svchost.exe	Microsoft Network Policy Server RADIUS Server	LAB-AUS-HPS-01.lab.tex	0.68%
svchost.exe	Active Directory 2003-2008 Services and Counters	TOK-ALPHA-2KB-D.alpha.local	0.66%
svchost.exe	Active Directory 2003-2008 Services and Counters	Orlando-AD2	0.66%
svchost.exe	Active Directory 2003-2008 Services and Counters	VMI-Test	0.66%



# Solarwinds Training

## Training Content :

### ⇒ Add-ons Orion (E) - End User Monitoring

- VoIP & Network Quality Manager :
  - IPSLA Cisco Configuration
    - HTTP
    - VoIP
    - DHCP
    - DNS...
  - Web Viewing.
  - Call Manager (if available).
  - CDR Analysis and Reporting (if available).
  - Alerts.
  - Limits and best practices.

- WPM (Web Performance Monitor):
  - Recorder usage
  - Player usage
  - Record a transaction and integrate into the console
  - Alerts.

**All IP SLA Operations**  
GROUPED BY OPERATION TYPE, OPERATION

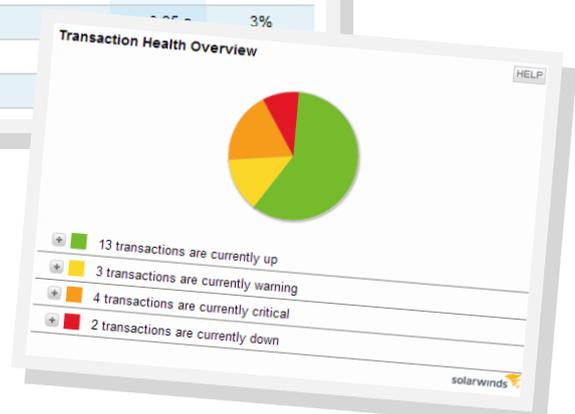
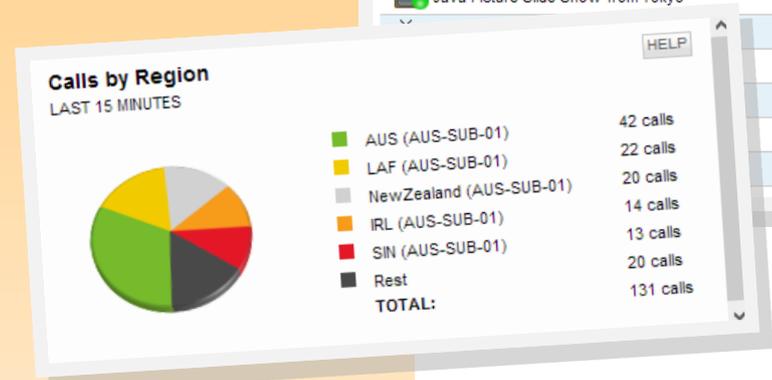
- + HTTP
- + DHCP
- + DNS
- + FTP
- + ICMP Echo
- + TCP Connect
- + UDP Echo
- + VoIP UDP Jitter
- + ICMP Path Jitter

**All Transactions**  
GROUPED BY LOCATION

- Austin
  - + Login to Thwack.com from Austin
  - + Oracle Web Forms from Austin
  - + Sharepoint from Austin
  - + Solarwinds ipMonitor Demo from Austin
  - + Solarwinds Orion Demo from Austin
  - + Solarwinds Orion SAM from Austin
  - + Solarwinds pages from Austin
  - + Solarwinds UDT from Austin
- Cork
- Tokyo

**Top 10 Transactions by Duration** HELP

TRANSACTION NAME	DURATION	% OF OPTIMAL
ENIGMA (Java) from Tokyo	45.81 s	1,595%
Exchange 2010 OWA Email Test from Cork	14.10 s	582%
Microsoft from Tokyo	32.17 s	341%
Microsoft from Cork	32.17 s	341%
Java Picture Slide Show from Tokyo	6.41 s	259%
	59.53 s	224%
	159.43 s	178%
		3%

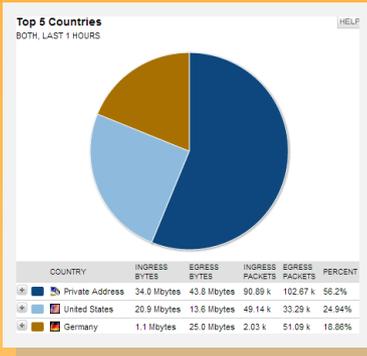
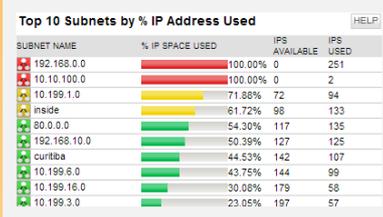


# Solarwinds Training

## Training Content:

### ⇒ Add-ons Orion (F)

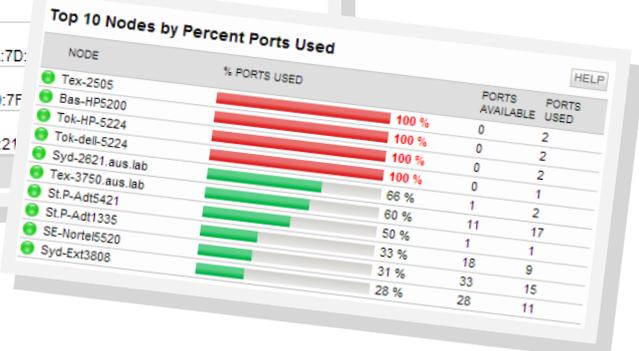
- NTA (NetFlow Traffic Analyzer):
  - Netflow, JFlow, Sflow configuration
  - Netflow Tools
  - Collector configuration
  - Viewing and Filtering data
  - Alerting on traffic analysis
  - Reporting
  - Limits and best practices
  
- IPAM (IP Address Manager):
  - IP Range Automatic Discovery
  - DNS/DHCP Viewing for Cisco and Microsoft
  - Reporting
  - Tools
  - Alerting on traffic analysis
  - Limits and best practices
  
- UDT (User Device Traker):
  - Global parameters.
  - Device watch
  - Ports used.
  - Alerts & Web customization.

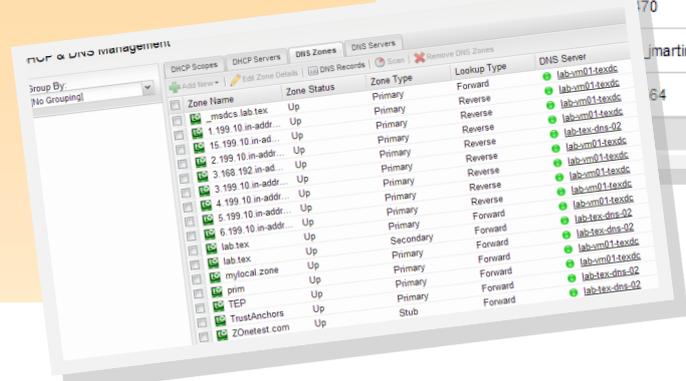
SUBNET NAME	% IP SPACE USED	IPS AVAILABLE	IPS USED
192.168.0.0	100.00%	0	251
10.10.100.0	100.00%	0	2
10.199.1.0	71.86%	72	94
inside	61.72%	98	133
80.0.0.0	54.30%	117	135
192.168.10.0	50.39%	127	125
curitiba	44.53%	142	107
10.199.6.0	43.75%	144	99
10.199.16.0	30.08%	179	58
10.199.3.0	23.05%	197	57



NAME	IP ADDRESS	HOSTNAME	MAC ADDRESS	NODE OR ACCESS POINT	PORT OR SSID	VLAN
cflores	10.199.5.34	syd_cflores.bis.local	69:6A:0A:3F:BE:BE2621.aus.lab	Syd-	Fa0/1	
Dell	10.199.6.130	Cor-e2121	9F:E5:67:CF:00:8B	St.P-Adt1335	swx 0/3	



NODE	% PORTS USED	PORTS AVAILABLE	PORTS USED
Tex-2505	100 %	0	2
Bas-HP5200	100 %	0	2
Tok-HP-5224	100 %	0	2
Tok-dell-5224	100 %	0	2
Syd-2621.aus.lab	100 %	0	2
Tex-3750.aus.lab	66 %	1	1
St.P-Adt1335	60 %	11	17
SE-Nortel5520	50 %	1	1
Syd-Ext3808	33 %	18	9
	31 %	33	15
	28 %	28	11



Zone Name	Zone Status	Zone Type	Lookup Type	DNS Server
_msdcs lab.tex	Up	Primary	Forward	lab-sm011.teaxdc
1.199.10.in-adr...	Up	Primary	Reverse	lab-sm011.teaxdc
15.199.10.in-adr...	Up	Primary	Reverse	lab-sm011.teaxdc
2.199.10.in-adr...	Up	Primary	Reverse	lab-sm011.teaxdc
3.199.10.in-adr...	Up	Primary	Reverse	lab-sm011.teaxdc
4.199.10.in-adr...	Up	Primary	Reverse	lab-sm011.teaxdc
5.199.10.in-adr...	Up	Primary	Reverse	lab-sm011.teaxdc
6.199.10.in-adr...	Up	Primary	Reverse	lab-sm011.teaxdc
lab.tex	Up	Primary	Forward	lab-sm011.teaxdc
mylocal.zone	Up	Primary	Forward	lab-sm011.teaxdc
prim	Up	Primary	Forward	lab-sm011.teaxdc
TEP	Up	Primary	Forward	lab-sm011.teaxdc
TrustAnchors	Up	Secondary	Forward	lab-sm011.teaxdc
ZNetest.com	Up	Stub	Forward	lab-sm011.teaxdc



# Solarwinds Training

## Training Center

Our center has all the equipment to provide practical training.

## Prerequisites

To insure an optimal confort, **we provide a thin client per participant** to access the training environment. In option, every attendee can bring a laptop.

If the monitoring solution is already in place in the company, a remote access on this environment can allow to answer faster to your technical questions.

## Languages

Our trainers speak fluently **English – French**.  
The training can be done in both languages.

## Environment

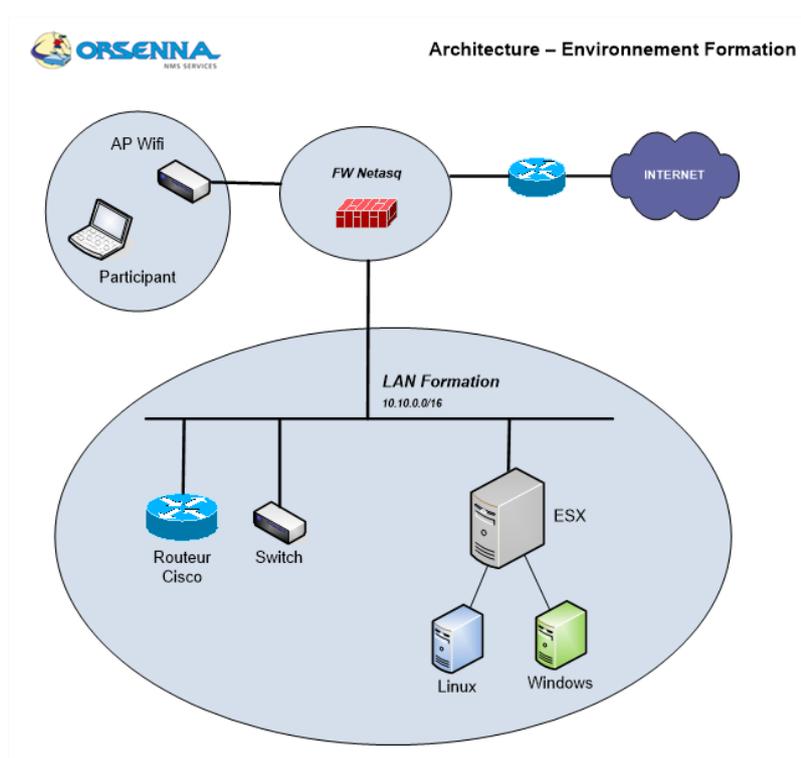
A wireless internet access will be available.

A remote access to our training platform will be provided to every attendee.

The platform has:

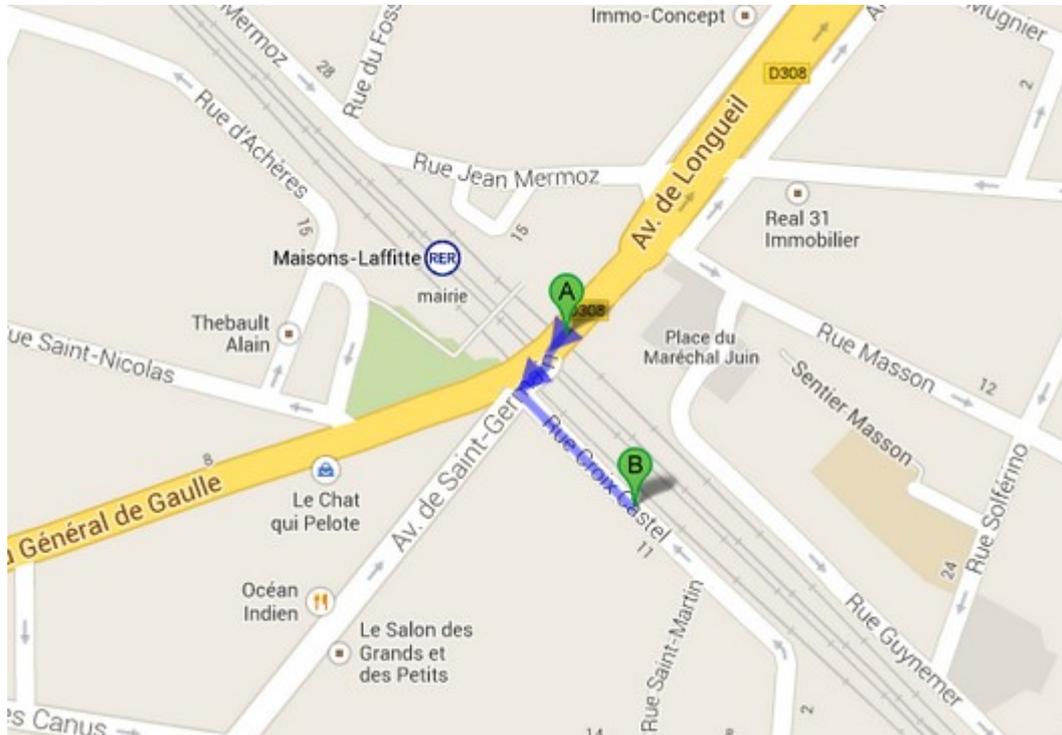
- \* Access to different network equipments (Routers, Switches) by Ping, SNMP, SSH.
- \* Access to different server types by Ping, SNMP and WMI
- \* Access to Linux environments

The training documents will be distributed in a PDF format.



## Solarwinds Training

[Access the training facilities](#)



**Address (B) :**

ORSENN  
15 Rue Croix Castel  
78600 MAISONS LAFFITTE  
France

Tel : +33 1 34 93 35 35  
Fax : +33 1 34 93 95 75  
Mail : nmsservices@orsenna.com

**Transport :**

Coming from Paris – La Défense :

RER A - direction Cergy or Poissy => Stop **Maisons Laffitte (A)** (15 min)  
=> <http://ratp.fr>

[Hours—Lunch](#)

The attendees are welcome to the building at 9:00 AM. The classes start at 9:30 AM and finish at 5:00 PM.

The training includes breakfast, lunch and coffee breaks.

## Solarwinds Training

### Training On-Site

We can also perform the training in different facilities for geographical, technical or budget reasons. The prerequisites are below :

The trainer has the following tools:

- \* Training Documentation in numeric format
- \* NMS standalone on the trainer laptop
- \* Linux Server in a Virtual Machine on the trainer laptop
- \* Cisco Router (Monitoring, IP SLA , Netflow)
- \* Netflow simulator software
- \* Syslog software
- \* Wireshark
- \* Snare

It allows us to be autonomous for the training, independently of the training room resources.

### Prerequisites for the training room

To improve the training quality and the interaction with the attendees, it is recommended to have the following elements:

- \* 1 Environment per attendee with an autonomous installation:
  - Windows Server with prerequisites (.Net Frameworks) and Orion (with SAM, NTA, NCM...)
  - Evaluation licences can be provided by Orsenna on demand.
- \* Access to Network equipments by SNMP (Routers, Switchs)
- \* Access to System equipments by SNMP and WMI (Windows + Linux)
- \* Access to Virtual environment (Vmware / Hyper-V)
- \* Access to Wireless controller.
- \* Internet Access

### Training Remote

We can also provide remote classes on our environment or directly connected to yours, to reduce cost or mix attendees which are located on different sites.