IpanemaTech

Ipanema SD-WAN Training Catalogue

September 2021

IpanemaTech
23 avenue Carnot
91300 Massy
France

www.infovista.com
training@infovista.com

Table of Contents

While greater efficiency, better use of network resources, WAN Governance in cloud computing environments and hybrid networks are regarded as crucial, training should be considered in the same vein.

You chose **Ipanema Essential** or **Ipanema SD-WAN** solution to align your (or your Customers') network or hybrid networks with business application performance objectives, but are you properly trained to deploy, configure, operate and support them in the most efficient way?

Although very simple to operate, **Ipanema** solutions require some knowledge and hands-on experience to bring you the greatest benefits: **you need training**.

Already been trained?… but do you know the latest products and features (CloudMesh, EdgeSentry, etc.)?

This is what IpanemaTech brings you: we provide a number of training courses and workshops so that all your training needs can be successfully satisfied.

Once you have been trained and have acquired some experience, take your chance with our exams: various Certification programs provide you with many advantages!

This document contains most of the information you may be looking for (including the price list – for yes, training has a cost! But *if you think education is expensive, try to estimate the cost of ignorance!*)

Yet, should you have any question or comment, please do not hesitate to contact us at:

training@infovista.com

François GUÉRIN

Your Ipanema Training Program

IpanemaTech's offer brings you the best training according to your profile and needs, whether you are an end-user or a Channel Partner, or working for a Managed Services Provider or a Telco.

Ipanema Essential and Ipanema SD-WAN

- **Ipanema Essential** leverages SALSA on-premise central software, and allows managing hybrid networks, but only in transparent mode (i.e. without any routing feature).
- **Ipanema SD-WAN** leverages a Cloud Orchestrator, and its **Advanced** and **Premium** service levels embed routing and advanced security features on top of the rest, thus allowing dynamic management of the Overlay.

Ipanema Essential and **Ipanema SD-WAN** both have their own training curriculum, with an important common core course and, for our Customers migrating from the first one to the latter, a simple 2-day gateway training course to upgrade your knowledge.

Technical Training and Certification on Ipanema Essential

Training modules

IFB ①	REP ①	AAF ①	SOP ②	HYW ②	ASU ③
Ipanema Features & Benefits	Reporting	Appliances & Advanced Features	SALSA Operations	Hybrid WAN	Advanced Support

Prerequisites: significant experience + **IC-E**

← Also available in **e-Learning** (light version) →

① = 1 day

Training curricula

Overview ①	Reporting ②	Fundamentals ③	Operations & Technical Support OTS ⑤ =	Optimisation of Hybrid networks OHN* ⑤ =	Master ⑩ or ⑧
IFB	IFB	IFB	IFB	e-Learning +	OTS / OHN
	REP	REP	REP	IFB+	HYW
		AAF	AAF	SOP	ASU
			SOP	HYW	

Introduction before any other course

(*) **OHN** leverages the e-Learning to cover **OTS** + **HYW** in **5 days**

Certification

Ipanema Certified...

IPANEMA **IC** TECHNICIAN

IPANEMA **IC** EXPERT

IPANEMA **ICAS** EXPERT
Advanced Support

Path to full Technical Certification

OHN → IPANEMA IC TECHNICIAN → significant experience → IPANEMA IC EXPERT → ASU → IPANEMA ICAS EXPERT

Technical Training and Certification on Ipanema SD-WAN

Ipanema SD-WAN is very similar in many aspects with **Ipanema Essential**, hence the similarities between their training modules, most of which are common to both. Only one module, DOV (Dynamic Overlay), is completely and exclusively dedicated to **Ipanema SD-WAN**.

Training modules

| IFB **1** | DOV **1.5** | DWS **0.5** | APP **1** | **1** = 1 day |

Ipanema Features & Benefits

Dynamic Overlay

Dynamic WAN Selection

Application Control & Optimisation

Excerpt from **SOP** (apps, Application Groups)

Excerpt from **HYW**

Training curricula

Ipanema SD-WAN

This 4-day course has been designed for **new Customers**, who do not know the ipanema solution.

It covers Visibility, Control, DWS and the Dynamic Overlay

Existing Customers **2** who already know the ipanema solution (Visibility & Control), but *not* DWS, can attend days 2 and 3, only

Existing Customers **1.5** who already know ipanema, *including* DWS, can attend the 1.5-day course on the Dynamic Overlay, only

SDW **4**
=
IFB
DOV
DWS
APP

DOV
DWS

DOV

Certification

Ipanema SD-WAN Certified…   IPANEMA ISWC TECHNICIAN → significant experience → IPANEMA ISWC EXPERT

From Ipanema Essential to Ipanema SD-WAN

People already trained on **Ipanema Essential** will only need **two days** (or maybe one and a half, if they already master DWS – covered in HYW course) to get trained on **Ipanema SD-WAN**:

● ipanema

e-Learning

IFB REP AAF SOP HYW

OHN **5**

IPANEMA **IC** TECHNICIAN

Optimisation of Hybrid networks

DOV **1.5** + DWS **0.5**

Dynamic Overlay

Dynamic WAN Selection

significant experience

IPANEMA **IC** EXPERT

DWS is an excerpt from HYW, so it is not mandatory if you have already attended the latter.
It is strongly recommended, yet.
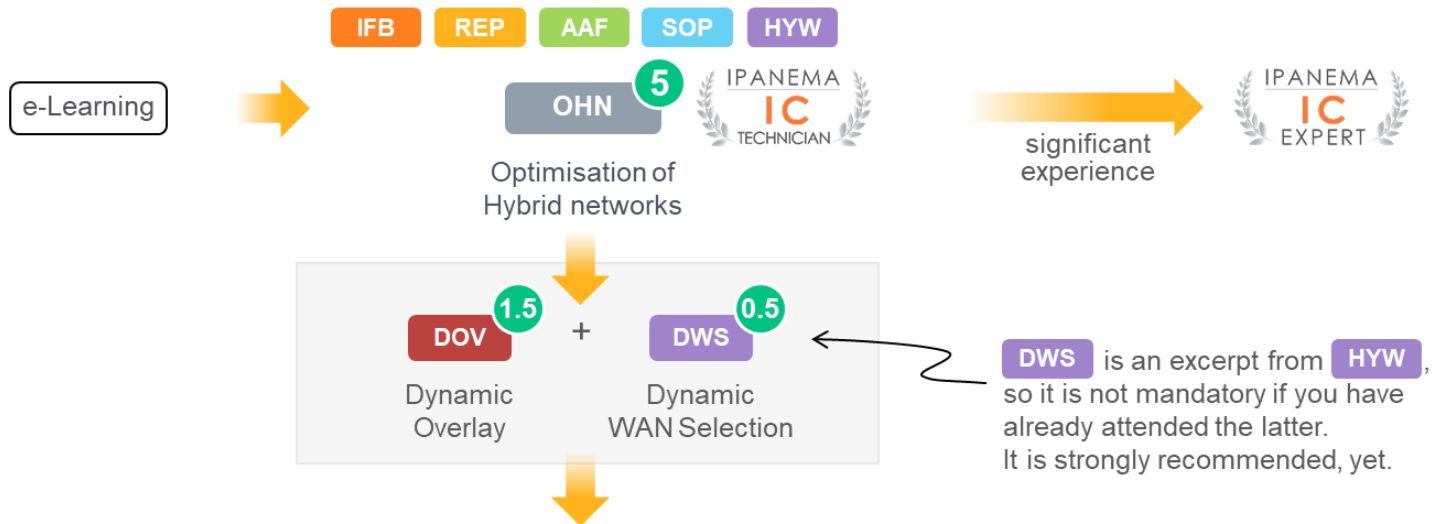
● ipanema SD-WAN

Pre-requisites:

IP networking knowledge (CCNA or similar skill level)

IFB DOV DWS APP

SDW **4**

IPANEMA **ISWC** TECHNICIAN

Ipanema SD-WAN

significant experience

IPANEMA **ISWC** EXPERT

Your online training

Ipanema Essential

Online training is provided via an **e-Learning course, "eOTS"**, made up of three e-Learning modules.

eOTS allows you to access **IFB**, **AAF** and **REP** training modules on **ipanema 9.3** any time, any place and at your own pace, and to meet your exact needs, depending on your profile (e.g. you can take the whole course, or learn about some features only, taking the corresponding modules).

These three modules are made up of 13 "grains", and we provide you with a **demo lab** to play with, so that you can get more familiar with the system. All modules are interactive and will require your active participation throughout.

Total training takes **from 6 to 10 hours**, depending on individual learning pace.

Successful completion of the training and quizzes results in a first tier of technical certification, **IPANEMA ICET TECHNICIAN** (Ipanema Certified Entry-Level Technician), equivalent to **IPANEMA IC TECHNICIAN** .

Note that **eOTS** *does not replace* **Instructor-Led** **OTS** **Training** (it is not as deep, as comprehensive, as interactive nor as up to date, and there are no workshops – access to the lab is read-only).

eOTS is mainly designed for people who just need a **global understanding** of the Ipanema solution, or who face **strong constraints** (e.g. travel bans) preventing them from attending an ILT class.

eOTS can also *complement* **OTS** in a very flexible and helpful way, before or after the latter, and **curricula can be mixed**:

- for instance, it is possible to attend **eOTS**, followed by ILT **SOP** (workshops), making this combined curriculum a nice alternative to a full 5-day ILT **OTS** .
- **OHN** is a mix training curriculum that combines **eOTS**, **SOP** and **HYW**, thus allowing an equivalent to **OTS** + **HYW**, but in just five days instead of seven.

Ipanema SD-WAN

Online training is provided via regular webinars (twice a month) and short online videos (available on our Partners Portal).

Your Certification Program

Various certification programs provide you with many advantages. Although not mandatory for everyone, we strongly recommend each one to take the certification exam that corresponds to their profile and solution:

Ipanema Essential

Ipanema Certified Entry-Level Technician (embedded in the e-Learning)

Ipanema Certified Technician (equivalent to **ICET**, at the end of Instructor-led training)

Ipanema Certified Expert (significant experience is required)

Ipanema Certified Advanced Support expert (most advanced level)

Ipanema SD-WAN

Ipanema SD-WAN Certified Technician

Ipanema SD-WAN Certified Expert

Exams: who, when, where… and why?

Who should take a Certification exam?

Our **Business Partners** are requested to have a certain number of certified experts (see below).

End-customers who want to test or consolidate their knowledge proficiency and professional value with this industry recognised Certification can take the exams too.

Where and when can I take a Certification exam?

ICET exam is embedded in the e-Learning.

IC-T and **ISWC-T** are taken at the end of an ILT course.

IC-E, **ISWC-E** and **ICAS** are on-line, you can take them any time in the year following the end of your course.

How much time does a Certification exam require?

ICET is taken during the e-Learning. **IC-T** and **ISWC-T** take 20 minutes, **IC-E, ISWC-E** and **ICAS** 1.5 hour. (When you take an exam, the remaining time is permanently displayed.)

Ipanema Essential has several levels. What is the path for full Technical Certification?

The path for full Technical Certification on ipanema Essential is:
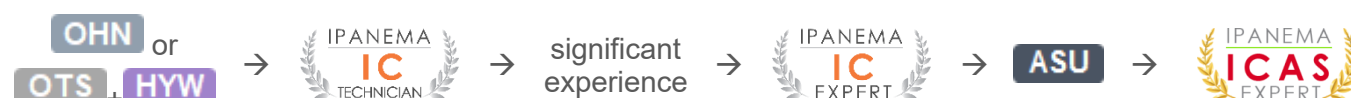
Can I take an exam without attending the corresponding course?

Taking an exam without having been trained does not really make sense.

However, we can grant access to exams to someone who already justifies significant experience with our solution (note that it will be charged, in that case – as it is normally included in the price of the course), as a means of validation of acquired experience.

Yet, if the candidate fails they will be required to attend the course before taking the exam again.

Which topics are covered? How can I prepare?

Only the topics covered in the courses are covered in the exams; which means that you do not need any further information.

But conversely, covered in the Expert-level exams will be questions concerning **all topics** covered in the courses; which means that you need a good knowledge and understanding of all of them, plus practical experience (indeed, courses give very good guidance and *knowledge*, but *true understanding* only comes through experience)

Are there practice tests?

There are not thousands of different questions in Ipanema Certification exams, so we do not provide practice tests. The best practice you can get is in the real world anyway!

What is the format of Certification exams?

Certification exams are multi-choice quizzes, mainly.

How many questions will I be asked?

The number of questions is 20 for **IC-T** and **ISWC-T**, 60 for **IC-E** and **ISWC-E**, and 80 for **ICAS**.

How many possible answers are there? How is the score computed?

Single-choice questions allow one and only one answer to be chosen by providing radio buttons ⊙ next to the answers. The grade for such a question can be 0 (bad answer) or 1 (correct answer).

Multiple-choice questions allow one or more (possibly all) answers to be chosen by providing check boxes ☐. The grade can also be 0 or 1. To get a 1, *all* the correct answers must be selected, and *not a single* bad one (so choosing all the answers will not necessarily result in good grade).

But more importantly, whatever the question, you should always read them very carefully!

Can I skip questions?

Although not recommended due to the time constraints, it is possible to skip questions: just click on the **Next** button; then you can come back to these questions at any moment, by clicking on the **List** button.

Note that not all web browsers / Flash payers support these features.

Can I pause the exam?

No, after you start, you cannot pause the quiz, and you cannot take it twice without requesting a renewed access (see below). So you are strongly advised to close your email, switch off your phone and take the test in a location where you will not be disturbed.

What is the Mastery score?

You will pass the exam if you get **70%** or more correct answers.

Your overall score and your score for each topic will be displayed at the end of the exam.

Can I see what the exam and questions look like?

If you open the exam and then close its window *without* clicking **Start Test**, then you will not have taken the test. So you can read the instructions on the first page and take the exam later on.

Regarding the questions, here is an example of a question you may be asked in an exam:

When does Application Control trigger?

O   *Slightly before congestion occurs*

O   *At the exact moment when congestion occurs*

O   *During the next second after congestion has occurred*

I have completed a technical training path: am I ready to take a Certification exam?

IC-T and **ISWC-T** are taken right at the end of a course.

On the opposite, **IC-E**, **ISWC-E** and **ICAS** exams are meant to prove that the delegates have acquired a suitable level of **expertise** on the system, which requires **practical experience**. So, attending a course may not be enough: it is only through practice that you can fully *master* a solution.

I have attended a course on ipanema version X, but the quiz is based on version Y: is it an issue?

The course is always a bit ahead, in terms of versions, so as to show the attendees what's coming soon.

This is not a problem, yet, most questions being version-independent (concepts etc. remain the same). Moreover, a course on ipanema v[X+1] does contain all the information needed for a quiz based on v[X].

There are version-related questions only when a new version brings a new feature (such as WAN Security in v9), but this will only concern people who take the quiz based on v[X+1] a long time after they attended a course (still on v[X]), which is not recommended. And even in that case, it should not be a big problem, as the questions on the new feature will only represent a small percentage of the total.

How can I access a Certification exam?

Registration on **IC-T**, **ISWC-T** and **ICAS** Certification exams is automatic, at the end of the corresponding training. Access to **IC-E** and **ISWC-E** is granted on demand, when you are ready to take them.

Can I take Ipanema Certification exams several times?

By default, you cannot take Certification exams several times; however, should you fail by only a few marks, you will get a second chance: just ask us for another try. This being said, taking the exams over and over again won't help (the questions are randomly selected from a large pool, so you will not be asked the same questions every time). If you do not yet have the knowledge and experience required, taking the exam again until you pass, eventually, without working on the system, is not recommended.

How expensive are Certification exams?

Certification exams are included in the price of a course. Should you fail the first time, you can retake your exam once, free of charge. Beyond that, exams are chargeable.

What is the validity period of Ipanema Certification?

Every certification is **valid for two years**. In order to ensure that our certified Partners are keeping up to date and current on the latest Ipanema features and software versions, IpanemaTech requires that you **renew your certification**, ideally prior to your expiration date.

How can I re-certify?

All you have to do is passing your certification exam again.

Re-certification is at no charge if it is taken before expiry of the current certification. If it is after expiry, it is chargeable. There is no requirement to retake the course in either case. Yet, if you are unsuccessful in passing the re-certification, then we would recommend you retake the course.

Courses Syllabus

IpanemaTech regularly updates the content of the training courses on the Ipanema solution to take into account its evolutions and to constantly improve the quality of the materials.

IFB

Training objectives

"**Ipanema Features & Benefits**" is a presentation and demonstration of **Ipanema**'s unique autonomic networking solutions' Features and Benefits (both **Essential** and **SD-WAN**) in a dynamic one-day session. It also explains the principles of two fundamental features of the solution: Application Visibility and Application Control.

At the end of the session, attendees will understand the application metrics computed by **Ipanema** solutions and know how to interpret them. They will also know how Control acts on them to protect the critical applications.

This training is also an introduction before any other technical course.

Duration

1 day

Price

see the Price list below

Training methods

Theoretical presentation with the help of video projection and immediate demonstrations (with hands on, when the number of attendees and the location of the course allow for it).

Also available in e-Learning.

Audience

- Anyone, including non-technical people, wishing to discover the Ipanema solution
- Anyone involved in an Ipanema project who needs to know at least the fundamentals of the solution

Pre-requisites

- Global knowledge of IP Wide Area Networks
- Global knowledge of software applications

Contents

- Ipanema solution overview
  - Who We Are. Our Customers
  - Control the Complex
  - Ipanema and Ipanema SD-WAN
  - All the features in one slide (each)
  - A centrally managed cooperative architecture
  - Ipanema Appliances
  - Security
- Application Visibility
  - Principles, metrics, notion of quality
  - Monitoring: Dashboard
- Application Control
  - Bandwidth Control, or how to protect the critical applications
- Tele-managed Sites: no need of Appliances on all Sites!

REP

Training objectives

The "**Reporting**" course explains **Ipanema Essential** reports until release 9.3 in detail, and shows some case studies and examples of audits conducted leveraging these reports.

At the end of this training session, attendees will be able to interpret the Ipanema reports and exploit their richness.

Duration

1 day

Price

see the Price list below

Training methods

Theoretical presentations are carried out on video projectors. Attendees have access to real live reports on the training network.

Also available in e-Learning.

Audience

- Partners: application performance specialists having to draw up technical audits for their customers
- End-users: anyone having to interpret "raw" Ipanema reports (i.e. reports not already analysed in the framework of a technical audit provided by their MSP/NSP)

Pre-requisites

- Good knowledge in networking and software applications
- Understand the application metrics computed by the Ipanema solution and know how to interpret them (**IFB**)

Contents

- Using the reports
    - Access to the reports
    - Comprehensive multi-layer Reporting, top-down analysis
    - Temporal aggregation, periodicities
    - SALSA export
- The reports
    - high level (SLM, SLA)
    - technical (PM, AM, CAM, SA)
    - supervision (FI)
    - specific (VoIP, SAM)
- Smart planning (Network Rightsizing)
- Case studies, audits
- 9.4 reporting

AAF

Training objectives

During the first half of the course, "**Appliances & Advanced Features**" presents the range of **Ipanema Essential** Appliances and explains how to install them, in multiples deployment cases. During the second half of the course, advanced WAN Optimisation and Hybrid WAN features are introduced (the latter are detailed and configured in a dedicated 2-day course, **HYW** - see below).

Duration

1 day

Someone who would only want to learn about ipanema Appliances (typically an Installer) can attend only the first half of the course (i.e. the morning).

On the opposite, we do not recommend someone who only wants to learn about advanced features to only attend the second half: indeed, it is necessary to know the range of Appliances and the features they support to deploy these features.

Price

see the Price list below

Training methods

Theoretical presentation with the help of a video projector and immediate practical application by the attendees taking part in workshops on the training platforms (2 attendees per platform).

Also available in e-Learning.

Audience

- Installer
- Anyone who needs to know about the advanced features

Pre-requisites

- Good knowledge in networking and software applications
- Good knowledge of Application Control (leveraged by all the advanced features; **IFB**)

Contents

- Product range
- Installation of ipanema Appliances
- Deployment cases
- WAN Optimisation
  - Compression
  - SSL Optimisation
  - Ipanema Mobile Agent
- Hybrid WAN (overview)
  - Dynamic WAN Selection
  - WAN Security

SOP

Training objectives

"**SALSA Operations**" training teaches **Ipanema Essential** System administrators how to configure and manage the solution thanks to SALSA Central Management Software.

Duration

2 days

Price

see the Price list below

Training methods

Theoretical presentation with the help of video projection and immediate practical application by the attendees taking part in workshops on the training platforms (2 attendees per platform); the workshops represent most of this training.

Audience

- Support engineers
- Pre-sales
- Network administrators
- Network architects
- Project managers

Pre-requisites

- Knowledge of IP networks (TCP/IP stack)
- Global knowledge of software apps
- Good knowledge of the two fundamental features of the solution: Application Visibility and Control (**IFB**)
- Knowledge of the advanced features (**AAF**)

Contents

- SALSA Architecture
- Domains, Users and License management (SALSA platform configuration)
- Domain configuration: Application Visibility
  - Configuration & activation
  - Monitoring workshop (Dashboard)
  - Creating Applications
  - Reports & alarms config.
- Application Control
  - Configuration & activation
- WAN Optimisation
  - Configuration & activation of Compression
  - Configuration of SSL Optimisation
  - Configuration of Ipanema Mobile Agent
- Supervision & Maintenance
- Important reminders, advice

APP

(SD-WAN)

Training objectives

"**Application Control**" is the equivalent to **SOP** for **ipanema SD-WAN**. It covers the configuration of apps and Application Groups for Application Control and WAN Optimisation.

Duration

1 day

HYW

Training objectives

At the end of "**Hybrid WAN**" course, attendees will know how to configure **Ipanema Essential**'s **Dynamic WAN Selection** and **WAN Security** features to deploy their Hybrid networks.

Duration

2 days (1 day only without workshops nor the troubleshooting section)

Price

see the Price list below

Training methods

Theoretical presentation with the help of video projection and immediate practical application by the attendees taking part in workshops on the training platforms (2 attendees per platform).

Audience

- Network engineers having to deploy or optimise hybrid WANs

Pre-requisites

- Knowledge of IP networks (TCP/IP stack)
- Global knowledge of software apps
- Good knowledge of the Ipanema solution, namely of Visibility and Control (**IFB** minimum; **OTS** strongly recommended)
- Significant experience with Ipanema

Contents

- Dynamic WAN Selection
  - Objective
  - DWS TOS & DWS CPE
  - Principles
  - Decision algorithm
  - Notes on Probing
  - Decision Level
  - Return path
  - Visibility

- Appliances' configuration
  - ip|engines, virtual|engines
  - Multi-WAN, Multi-path, Dual-path
  - ASR
  - High Availability
  - WAN Security
- DWS configuration
  - WANs and WAN accesses
  - Appliances (TOS & CPE)
  - Application Groups
- DWS Workshop
- WAN Security
  - Evolutions 9.0 > 9.1 > 9.2 > 9.2.1
  - Configuration and Filtering rules (IPsec > DTI > WSG)
  - Appliances' configuration
  - Internet-only deployment cases
- Deployment cases
  - Standard case: DWS on MPLS+Internet
  - WAN security on Internet-only BOs
  - Different types of Internet accesses
  - Large Datacentre (up to two 10G links)
  - DWS and HSRP
  - Customer case study
  - High Availability
- Troubleshooting
  - BW Effective Density of Demand (EDD)
  - DWS CPE: a very typical problem
  - Check: configuration, Broken NAPs, connectivity, the selected path, reason for each decision, probing packets
  - WAN Security: most frequent errors

DWS

SD-WAN

Training objectives

"**Dynamic WAN Selection**" is the part of **HYW** covering DWS for **Ipanema SD-WAN**.

Duration

0.5 day

DOV

Training objectives

At the end of the "**Dynamic Overlay**" course, attendees will know how to configure the network part of **ipanema SD-WAN**.

Duration 1.5 day

Price see the Price list below

Training methods

Theoretical presentation with the help of video projection and immediate practical application.

Audience

- Network engineers

Pre-requisites

- Knowledge of IP networks (IPsec, BGP)

Contents

- Orchestrator
  - Cloud-native SD-WAN
  - Orchestrator, appliances, ZTP
  - GUI: Landing page, Network Controller, App. Controller, Supervision, Reporting, Admin.
- Service Levels
  - Licensing: Service Levels
  - Orchestrator: Administration > Licenses
- Appliances
  - ip|engines: architecture, deployment modes, bypass, IP addr., MultiWAN/ MultiPath, Roles, config. in the Orchestrator
  - Product line
  - ZTP Workflow
  - Installation
  - High Availability
  - Topologies
  - Communications (Orchestrator / ip|es)
- Full-router mode
  - Network with four Sites:
    BO1&3: single Internet connection
  - BO2: dual Internet connections
  - DC: dual Internet co. + Core router
  - Target > infra > IP > IPsec > BGP > traffic
  - Design & configuration of each Site
- Hybrid mode
  - Network with five Sites:
    BO1: Internet-only (ip|e in Router mode)
  - BO2: Internet+MPLS (Bridge-Router mode)

- BO3: MPLS-only (Bridge mode)
- BO4: MPLS-only (tele|engine)
- DC: Internet+MPLS + CR (Bridge-Router)
- Configuration Workshop
- Advanced configuration
  - External Gateways
  - Local Port Forwarding
  - OSPF
  - HA
  - Advanced parameters
- Zone-Based Firewall
  - General purpose
  - Zones & VPN Policies: Allow/Deny
  - Internet Access Policies: DTI/WSG/BH/Drop
  - DWS & ZBF
  - Default Firewall Behaviour
  - NAT: Local Port Forwarding & Logs
- CloudMesh & EdgeSentry
  - General purpose. How do they work?
  - CloudMesh configuration
  - EdgeSentry configuration
- Advanced Reporting & Analysis
  - Smart reporting for smarter network planning
  - Report categories
  - See anything you want: dynamic filters
  - Display, zoom, share, export
  - Reading some special Graphs
  - The reports
- Supervision
  - Managed alarms/events
  - Alerting API
  - Troubleshooting: ip|es' heartbeat
- Partners' Administration Tasks
  - Tenant Model
  - VAD: creating VARs and MSPs
  - VAR/MSP: creating Customers
  - Managing Users, Appliances and Licenses
- Recap & Case studies
  - Subnets config. Internal tunnels. Local design. Who decides where to send the flows?
  - Manage your Internet accesses

ASU

Training objectives

"**Advanced Support**" course shows **Ipanema Essential** system administrators how to customize the System through the use of the advanced parameters of the different components, to exploit the richness of reporting and to resolve any incident thanks to the debug commands.

Duration

3 days

Note: this course is reasonably intensive and requires the presence and attention of the attendees for the duration of the class

Price

see the Price list below

Training methods

Theoretical presentation with the help of a video projector and immediate practical application by the attendees taking part in workshops on the training platforms (2 attendees per platform)

Audience

- Support engineers
- Network administrators

Pre-requisites

- A good knowledge of networks, mainly in TCP/IP protocols, is required
- Having attended OTS or OHN training and having successfully passed **IC-E** certification exam
- Having first-hand practical experience of the Ipanema system (several months)

Certification

You shall automatically be enrolled on **ICAS** certification exam after the end of the course; then you shall have one month to take it.

Contents

- Refresh
- Latest Products & Features (all new features and enhancements brought to the solution (both software and hardware) in the latest two major releases (covering approx. two years))
- Advanced configuration
    - Manual changes in the configuration file
    - SALSA reporting
    - Clusters, HSRP
    - ip|engines: ASR, Twin
- Command Line Interface
- Helpdesk flowcharts
    - Check Ethernet / Topology / Apps
    - Check a QoS profile (BW objective)
    - User Call
    - Check an equipped Site
    - Appliance supervision
- Reports
    - Advanced case studies
- Troubleshooting
    - Read the commands
    - Make a dump
    - Problems of physical / IP / App connectivity
    - Sniffing traffic
- Advanced principles & debugging
    - Visibility: ip|true, ip|sync, RTG, reporting
    - Control: ip|fast
    - WAN opt.: ip|xcomp, SSL opt.

Courses Curricula

`OTS`

Training objectives

"**Operations & Technical Support**" is a curriculum made of several courses to teach **Ipanema Essential** System administrators the concepts of the Ipanema solution and how to configure and manage its different components. At the end of the course, attendees will be able to:

- understand the goals, concepts and principles of Ipanema features
- understand the application metrics measured by Ipanema
- competently discuss Ipanema reports and exploit their richness to conduct network audits and troubleshoot application quality issues
- choose and install Ipanema Appliances
- use SALSA and set all the parameters necessary to deliver the Service

Attendees will be able to autonomously configure and use the following features:

- Application Visibility
- Application Control
- WAN Optimization (Compression and TLS optimisation)

Duration

5 days

Price

see the Price list below

Training methods

Theoretical presentation with the help of video projection and immediate practical application by the attendees taking part in workshops on the training platforms (2 attendees per platform). The workshops represent approximately a third of the training.

Audience

- Network engineers having to deploy, manage or use the ipanema solution.

Pre-requisites

- Global knowledge of IP networks
- Global knowledge of software apps

Contents

"**Operations & Technical Support**" is a made up of four courses: `IFB`, `AAF`, `REP` and `SOP`, described here above.

UTD

1-day sessions allow you to stay "**Up To Date**", explaining the latest features, the significant changes and enhancements in the product over the last two major releases (corresponding to approx. one year). This update is included in `ASU` training.

OHN

Training objectives

"**Optimisation of Hybrid networks**" is a mix curriculum that leverages the e-Learning solution and contains several courses to teach **Ipanema Essential** System administrators the concepts of the system and the configuration and management of its different components.

It is **equivalent to** **OTS** + **HYW**, but **in five days** (instead of seven) + five hours of **e-Learning**.

At the end of the course, attendees will be able to:

- understand the goals, concepts and principles of Ipanema features
- understand the application metrics measured by Ipanema
- competently discuss Ipanema reports and exploit their richness to conduct network audits and troubleshoot application quality issues
- choose and install Ipanema Appliances
- use SALSA and set all the parameters necessary to deliver the Service

Attendees will be able to autonomously configure and use the following features:

- Application Visibility
- Application Control
- WAN Optimization (Compression and TLS optimisation)
- Hybrid WAN (Dynamic WAN Selection and WAN Security)

Duration

5 days (after 6 hours of e-Learning)

Price

see the Price list below

Training methods

E-Learning course followed by an Instructor-led training session, with theoretical presentation with the help of video projection and immediate practical application by the attendees taking part in workshops on the training platforms (2 attendees per platform). The workshops represent approximately a quarter of the training.

Audience

- Network engineers having to deploy, manage or use the ipanema solution, namely the Dynamic WAN Selection and WAN Security features.

Pre-requisites

- Global knowledge of IP networks
- Global knowledge of software apps
- **eOTS: mandatory**, as it is **part of OHN**; this e-Learning course covers **IFB**, **AAF** and **REP**, which are only briefly summarised in the classroom.

Contents

"**Optimisation of Hybrid networks**" is a made up of **eOTS** (e-Learning) followed by five ILT courses:

- **IFB**, **AAF**, **REP** summarised in one day (they have been covered in e-Learning prior to the course),
- **SOP** (2-day workshops)
- and **HYW** (2 days),

described here above.

SDW

(SD-WAN)

Training objectives

"**SD-WAN**" is a curriculum made of several courses that teaches administrators the concepts, configuration and operation of **Ipanema SD-WAN**.

At the end of the course, attendees will be able to:

- understand the goals, concepts and principles of Ipanema SD-WAN
- understand the application metrics measured by Ipanema
- use the Orchestrator and set all the parameters necessary to deliver the Service

Attendees will be able to autonomously configure and use the following features:

- Application Visibility
- Application Control
- WAN Optimization (Compression and TLS optimisation)
- Dynamic WAN Selection
- Dynamic Overlay

Duration

4 days

Price

see the Price list below

Training methods

Theoretical presentation with the help of video projection and immediate practical application by the attendees taking part in workshops on the training platforms (2 attendees per platform). The workshops represent approximately a third of the training.

Audience

- Network engineers having to deploy, manage or use the ipanema SD-WAN solution.

Pre-requisites

- Good knowledge of IP networks
- Global knowledge of software apps

Contents

"**SD-WAN**" is a made up of four courses:
IFB , **DOV** , **DWS** and **APP** , described here above.

IpanemaTech Partner Program
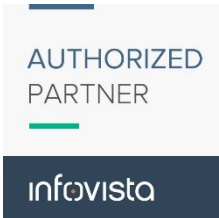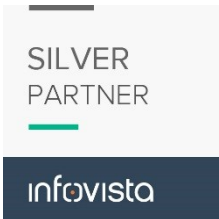
The IpanemaTech Partner Program defines the framework for collaboration between IpanemaTech and our Partners to ensure mutual success by creating value, ensuring quality and increasing profitability.

The Program provides our Partners with various advantages:

- Discounts,
- Deal registration,
- Marketing support,
- Technical support,
- MDF (Market Development Fund)

To benefit from these advantages, our Partners are required to:

- Provide certified Sales, Pre-sales and Technical experts,
- Own demonstration capabilities,
- Agree on business objectives,
- Deliver high quality Support to Customers.

The program consists of four tiers that provide incremental benefits and rewards based on training, certification, and revenue achievements.

		Benefit (one example)	Require-ments (Certif.)
AUTHORIZED PARTNER — infovista	The **Authorized** entry-level tier requires Partners to complete basic sales training. In return, they are eligible to earn discounts and access basic sales support.	25% Product Discount	2 ICSA 2 IC-T
SILVER PARTNER — infovista	The next tier, **Silver**, requires Partners to complete basic training in sales and systems engineering, as well as achieve a minimum threshold of revenue. In return, they are eligible to earn further discounts and access basic marketing and enablement support.	30% Product Discount	2 ICSA 2 ICPS 2 IC-E
GOLD PARTNER — infovista	As Partners achieve certain level of bookings, they may move up to **Gold**, which entitles them to higher financial rewards and other benefits such as bi-annual roadmap reviews allowing them to have deeper engagement with IpanemaTech and customers. This tier requires Partners to add more sales-certified resources further helping grow the joint business.	35% Product Discount	4 ICSA 2 ICPS 4 IC-E
PLATINUM PARTNER — infovista	As top tier of the program, **Platinum** status recognizes IpanemaTech's most accomplished Partners, with the highest level of certifications and the best prepared to address any market opportunity. They have access to a whole set of additional benefits, such as highest discounts, regular roadmap reviews, IpanemaTech exec sponsor and potentially dedicated channel manager depending upon business volume.	40% Product Discount	4+ ICSA 4+ ICPS 4 ICAS

Thanks to this program, IpanemaTech end-customers have the guarantee that their Service Providers have acquired all the mandatory skills and resources to deliver a best-in-class Ipanema solution.

For more information, please consult our brochure.

IpanemaTech Training Centre

Note: due to on-going Covid-19 pandemic, we are currently delivering most of our training courses remotely, via Teams.

IpanemaTech regularly organises public courses in its dedicated Training Centre, in its Headquarters

(as well as many other courses all across the world, either on its premises or on its Customers' premises, wherever they are located – see the On-site training section below).

Address

The Training centre is located in the south of Paris (geolocation), easily reachable from the centre of the capital city by train (RER):

3 rue Christophe Colomb, 91300 Massy, FRANCE

Tel.: + 33 / 1 64 86 79 00. E-mail: training@infovista.com

How to get there

Public transport from Paris or Roissy-Charles de Gaulle airport

RER line B direction Massy-Palaiseau or Saint-Rémy-lès-Chevreuse (a train every 6 min during peak hours), call at Massy-Palaiseau station (35 min from Châtelet-les-Halles, 1 hour 10 min from Roissy).

Then refer to the map below.

Public transport from Orly airport

Take the Orlyval (1 call, Anthony, 6 min), then RER B (see above; 1 call, 5 min).

If you come by car: where to park

If you come by car, you can park in Massy TGV car park, facing IpanemaTech in Carnot Av.

Hotels

We recommend one of the two following hotels, less than a 2-min walk away from our offices:

● **Mercure Paris Massy Gare TGV ****** (between 90 and 160 € per night)

  21 avenue Carnot; tel. +33 / 1 69 32 80 20; H1176@accor.com; web site

● **Residhome Apparthotel Massy** (between 90 and 160 € per night)

  7 rue Christophe Colomb; tel. +33 / 1 69 81 62 62; paris.massy@residhome.com; web site
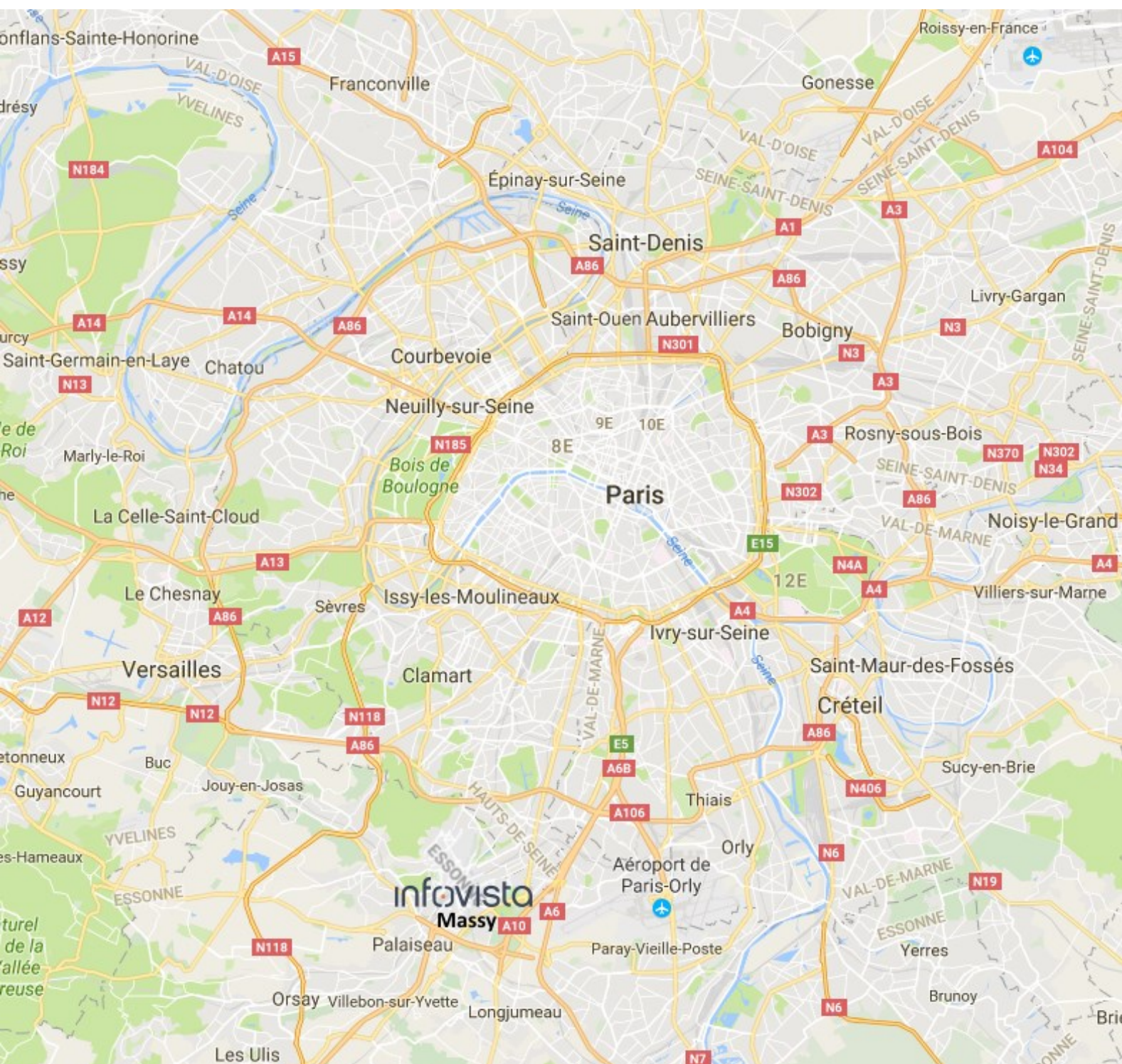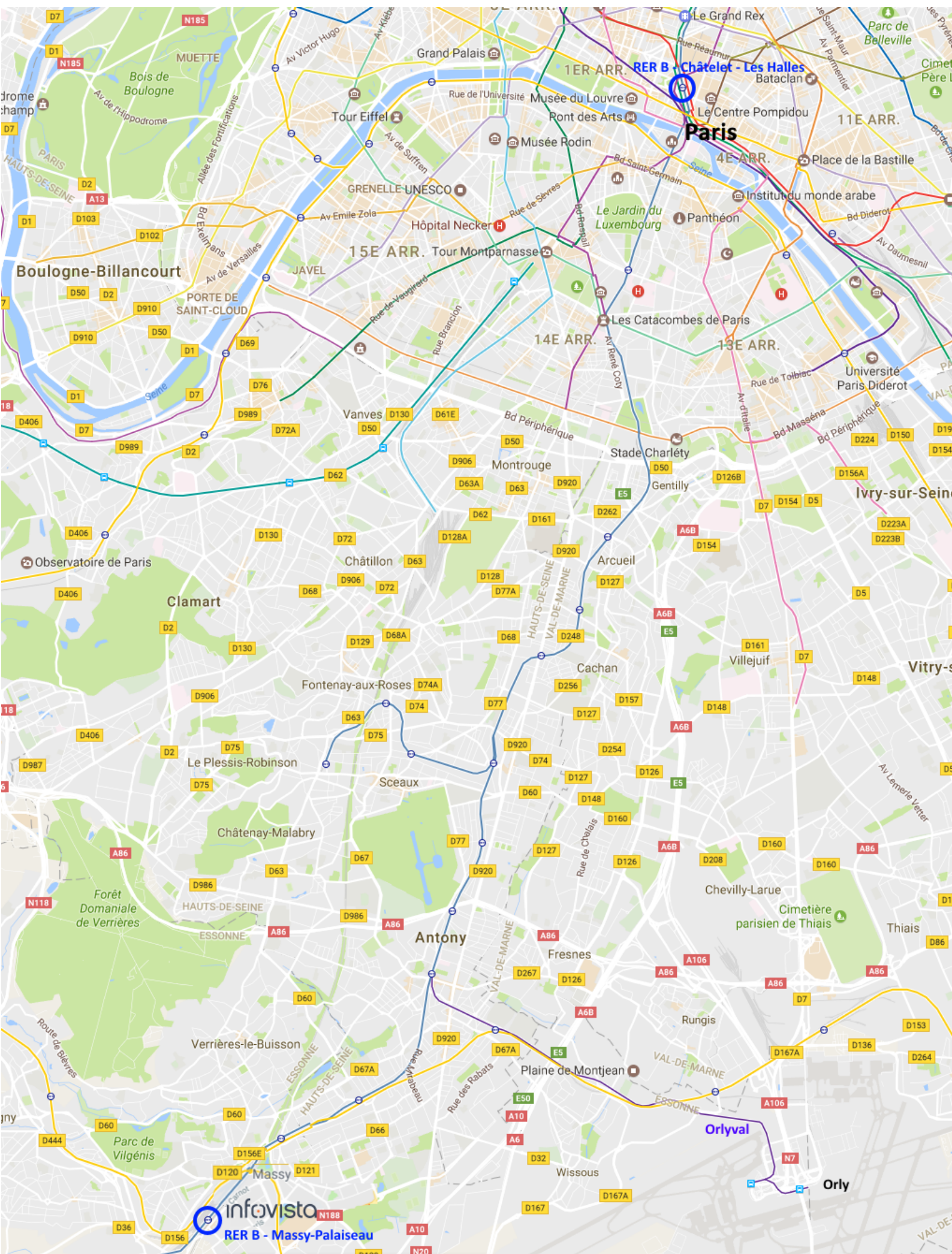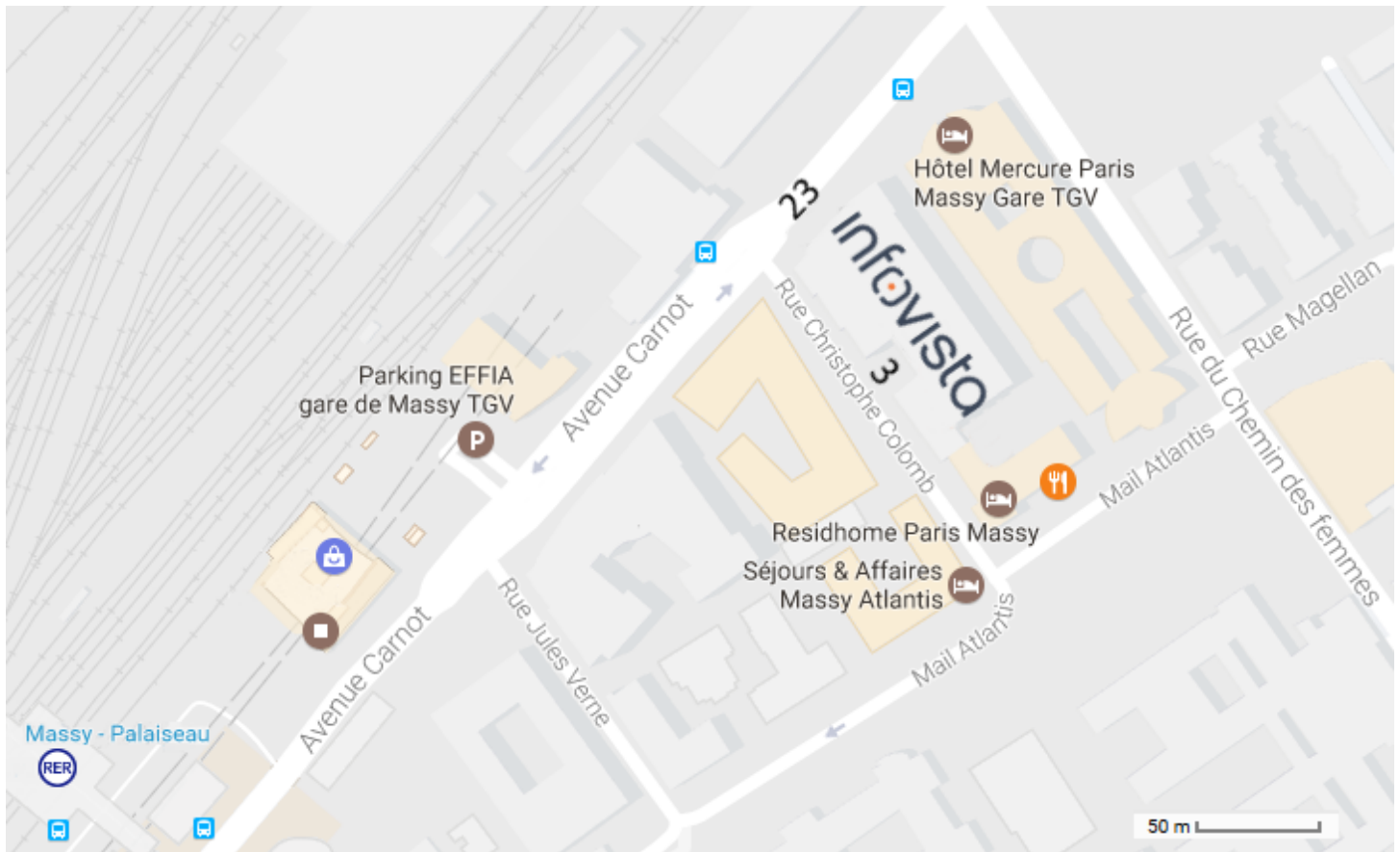
When you exit the RER station (or Massy TGV car park), turn left in Carnot avenue then walk 350 m (150 m from the car park): IpanemaTech's main entry (23 avenue Carnot) and our Training centre (3 rue Christophe Colomb) stand in front of you, across the street (5-min walk from the RER station, 2 min from the car park).

Hours - Meals

Attendees are welcome as of 8:45 am, and the training courses begin at **9:00 am** and conclude at approximately **5:00 pm** (before 4 pm the last day of multiple-day courses).

Lunch and coffee during breaks are included in the cost of the training when conducted in IpanemaTech facilities.

Training calendar

Training sessions are regularly scheduled (minimum once a month). The calendar is available on our web site (www.infovista.com), under SERVICES > TRAINING > Application Performance.

Courses can also be scheduled on demand: please do not hesitate to contact us.

Training labs

Most courses are made up of both theoretical and practical parts. To achieve practical exercises, IpanemaTech provides a fully equipped **training infrastructure** (Ipanema Appliances and software, servers, routers, traffic generators…) comprising 5 independent labs, each one including 3 interconnected LANs. Up to two attendees can use each lab.

For remote courses, the training labs are usually accessed over the Internet through SSL connections (see On-Site Training and Remote access to our training labs below).

Training materials

Our **training materials** are provided on USB sticks, so **attendees are kindly requested to bring their own laptops** to follow the presentation. For remote courses, their laptops will also be used to run the exercises on our training labs.

Our training materials are only available to trainees and are not for sale.

On-Site Training

Dedicated courses

Training courses can also be dedicated to a Customer, in their own premises, for **5 attendees or more** (up to a maximum of 10). In this case, the training date and location are jointly agreed according to Customer requirements and to IpanemaTech availability.

When dates and location are decided for a session, the Customer places a purchase order indicating the number of attendees, language, date and location of such session.

IpanemaTech then confirms to the Customer reception and acceptance of the order.

Customisation

Dedicated courses can be customised to satisfy the exact Customer's needs. Precise contents and duration of such courses is to be agreed jointly by the Customer and IpanemaTech.

Languages

We deliver the courses in **English**, **French**, **Spanish** and **Portuguese**.

Requirements

To conduct on-site training in the best conditions, the class will need **5 PCs** for 10 delegates (we have five training labs, where the delegates can work in twos), with **admin** level access and with access to SALSA server through an **Internet connection** (see Remote access to our training labs below). The bigger the screen resolution, the better (1280 * 800 as a minimum).

Your Firewalls must allow HTTPS and scripts.

Note also that in some cases, when using shared wireless LAN connections, our students have experienced increased access delays to SALSA. So we recommend that a wired connection be provided.

The instructor will also need an Internet connection to SALSA, and a **video projector** and a **whiteboard** (not a flip chart) plus pens

---

Note: we would like to let you know about a problem we often come across with on-site training: as the attendees are at their office with their laptops, they often access their emails during the course. As they are not listening 100% they ask questions that the instructor has already gone over, which can lead to the course being a lot longer than was scheduled, and they sometimes miss key content. We therefore politely request that they be advised not to do so to enable them to concentrate on the course for the benefit of all.

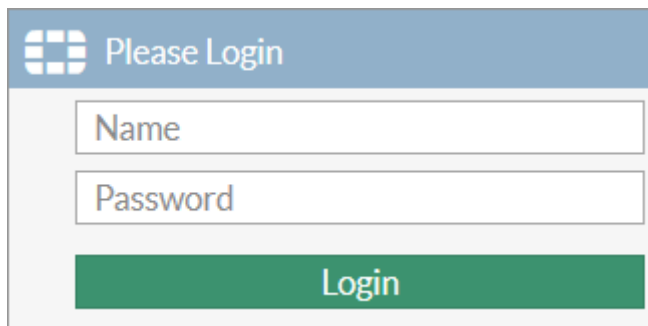*Thanks for your understanding.*

Remote access to our training labs

Training labs are important for **Ipanema Essential** practical courses to reinforce the theory.

NB: the procedure below, describing how to access our Training labs remotely, **should be tested by the delegates BEFORE the training course**, on the laptops or PCs they'll be using during the course (admin level access is required) and with the same Internet access as they will have in the training room, so as to make sure everything is working fine (firewall settings, etc., may need to be changed).

1. Install and configure FortiClient VPN SSL client (only during the 1ˢᵗ connection)

Connect to https://vpntraining.infovista.com with a web browser and authenticate (credentials will be provided to you before the course):

Download FortiClient 6.0 (version 6.2 surely works just as well, but we have not tested it yet):
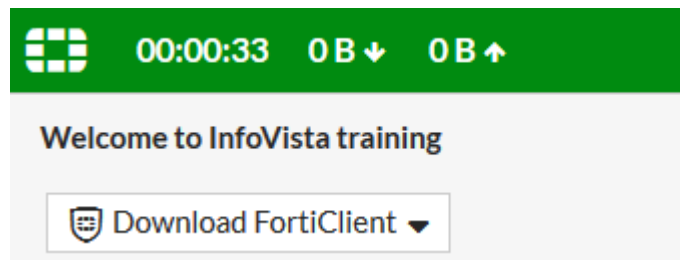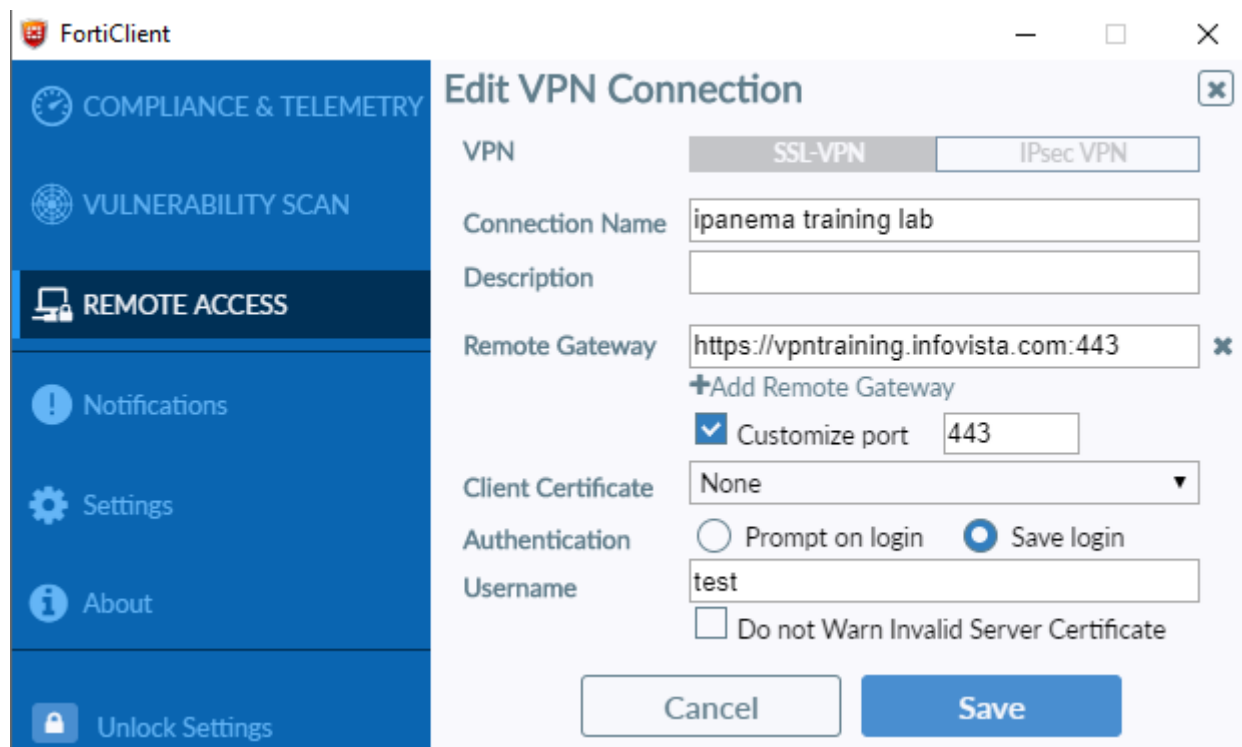
and install it (launch FortiClientOnlineInstaller.exe then follow the online instructions; you only need the VPN component).

Launch **FortiClient** from the Start menu. In Remote access, click Add a new connection:
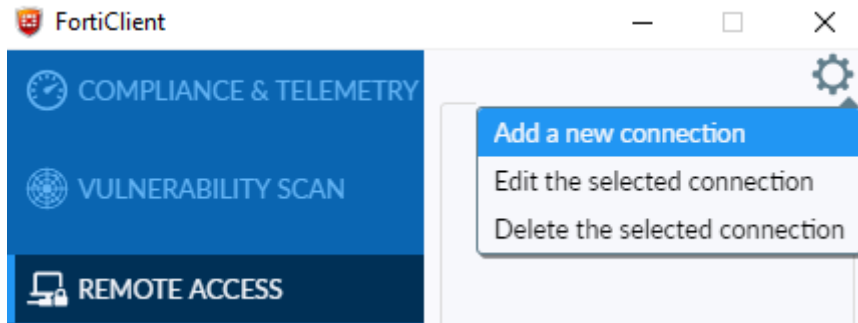
In the **SSL-VPN** tab in the **VPN connection** page, type:

- Connection name: *the name you wish to see in the Console after that*
- Description: *whatever you wish (optional)*
- Remote gateway: vpntraining.infovista.com
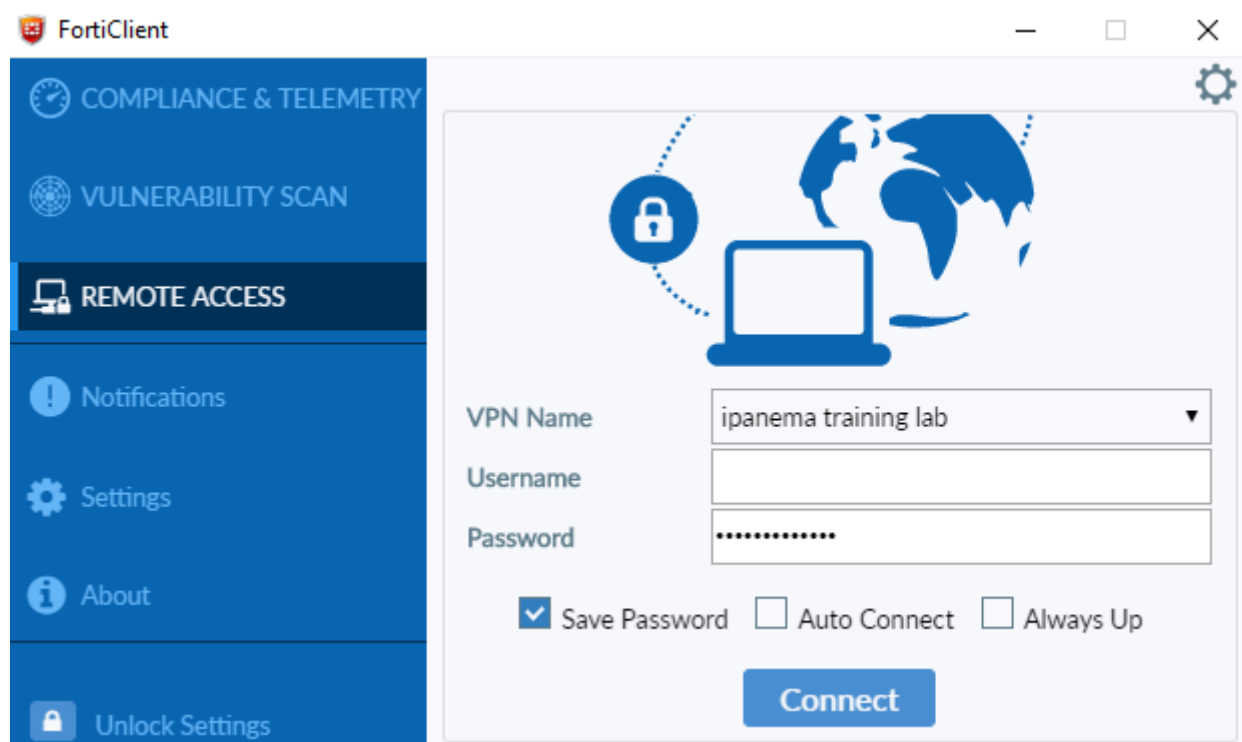
Click **Apply**, then **Close**.

2. Establish an SSL VPN to our SSL gateway

Now you can connect with the Console (same credentials as before):

An icon confirms the connection on your Taskbar:
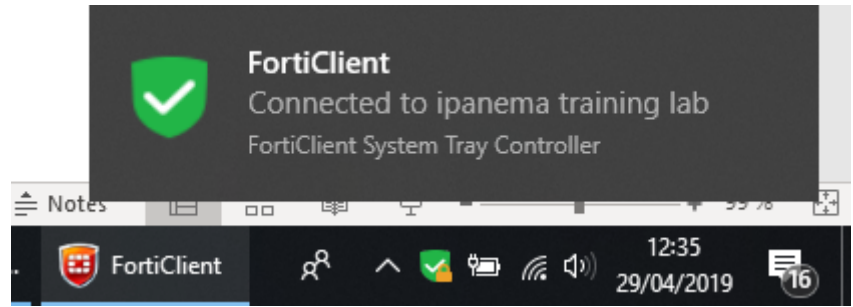
FortiClient informs you about the IP address you were allocated and the traffic through the VPN tunnel:
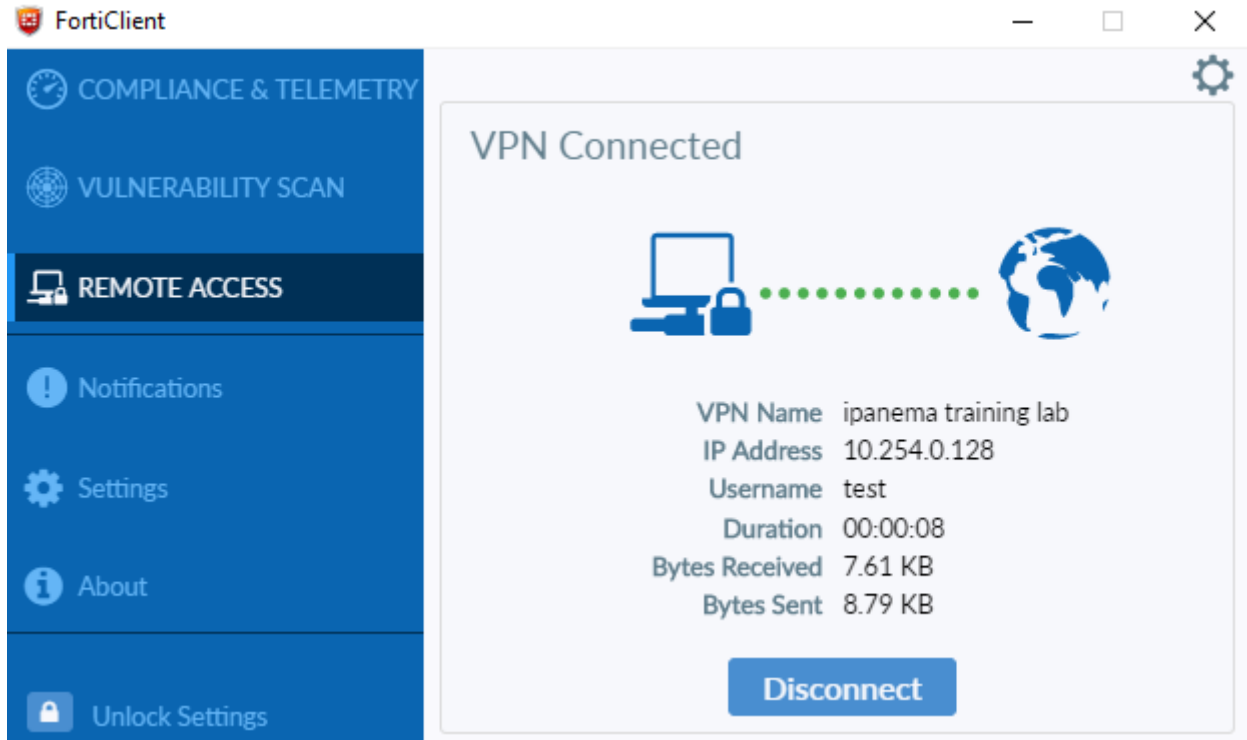
The **Disconnect** button allows you to close the tunnel, at the end of the training.
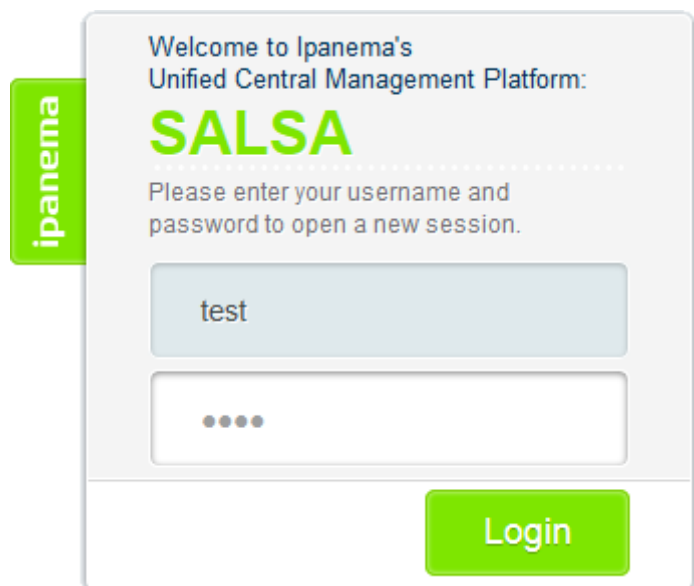
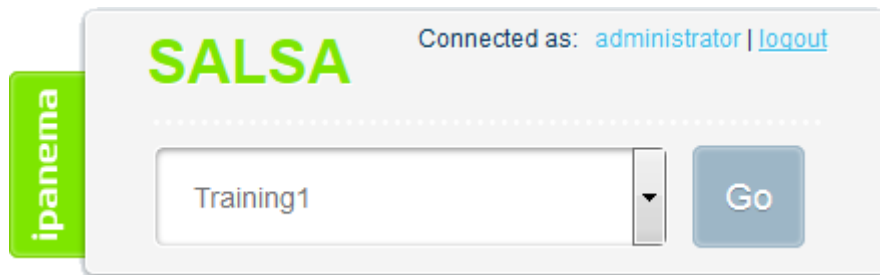**3. Open SALSA client in your web browser**:

https://10.10.0.10/salsa/

(all "standard" browsers are supported)
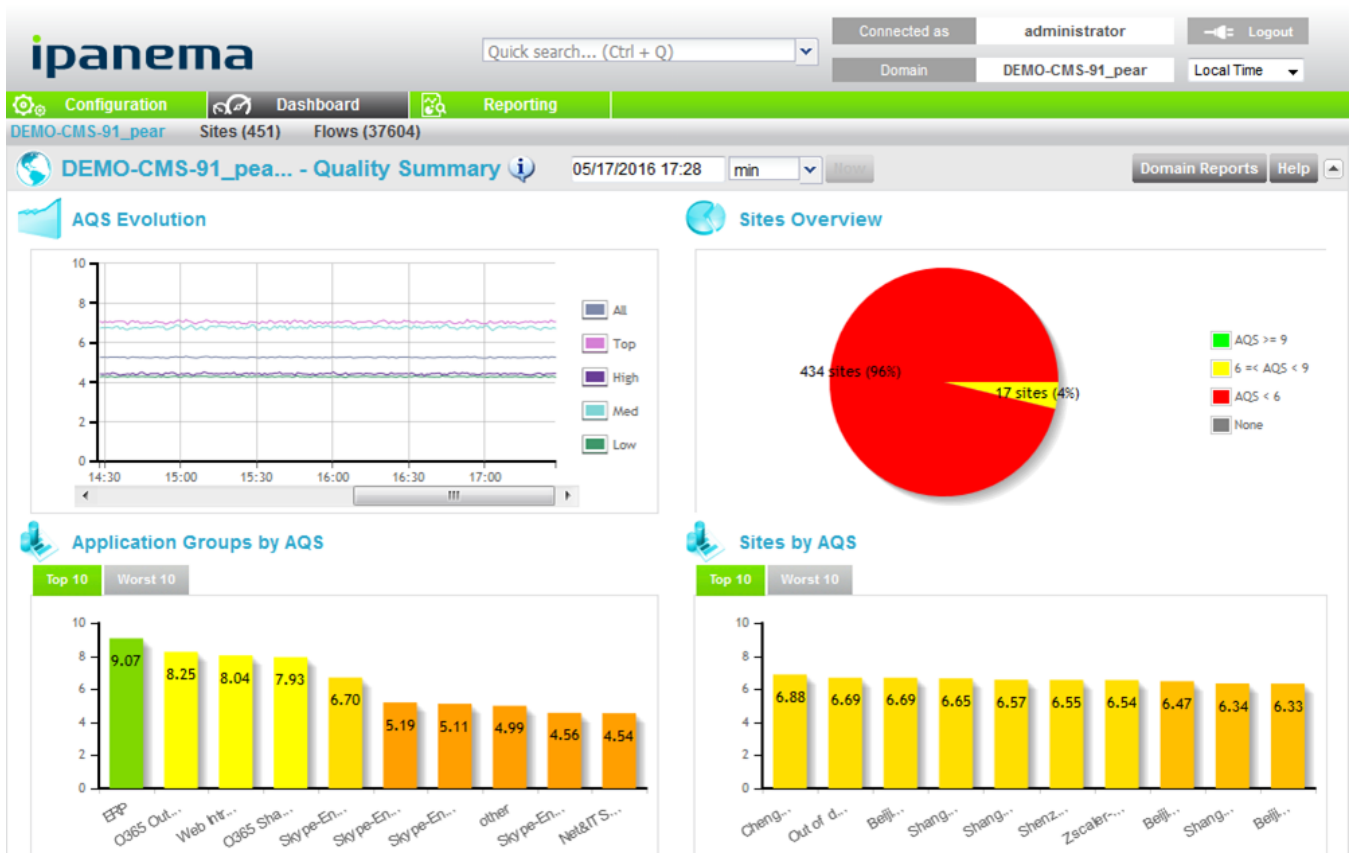
Username / password: test / test

(new credentials will be provided to you during the course)

Check that you have access to all components of SALSA:

- Select any Domain and click **Go** (if you see no traffic, try another one),
- play with the **Dashboard**'s interactive graphs etc. to check it's working fine (it will also help you get familiar with it before the course!):

- select the **Reporting** menu, browse the folder structure on the left till the last level, click a report's name and check it's correctly displayed,
- select the **Configuration** menu and check that the main page is correctly displayed.

You can now close all SALSA windows and the SSL tunnel.

Once you have completed this, or should you have any issue, please send us an email at:

training@infovista.com.

Price list and Conditions

Instructor-Led Training

The price of the courses depends on their types:

- **public**: open sessions where multiple companies can book individual places; price per attendee (**pa**)
- **private**: dedicated sessions for a single company; price per session (**ps**), fix for up to 10 attendees.

All our ILT training courses cost:

- **900 € / USD 1,008 per day and per attendee (pa)**
- **3,600 € / USD 4,032 per day and per session (ps)** – you pay the same price for up to 10 attendees

For instance, OHN (5 days) costs 4,500 € / USD 5,040 per attendee, 18,000 € / USD 20,160 per session.

On-site dedicated training

For on-site dedicated training, **travel expenses** can be added. Please contact us.

e-Learning

Our e-Learning courses are free of charge.

IFB	REP	AAF
Ipanema Features & Benefits	Reporting	Appliances & Advanced Features

← Also available in **e-Learning** (light version) →

Certification

Certification exams are included in the price of courses.

Conditions

Prices are in Euros and US dollars, taxes and duties excluded.

Payments are due 30 days after training completion.

Registration

Registration can be made through our web site or by e-mail (training@infovista.com).

Your registration becomes effective and is confirmed on reception of your purchase order; we kindly request that you send us the latter no later than two weeks before the start of the course.

Please note that a training session can be cancelled if the number of participants does not meet the minimum required. If the session is not confirmed yet when your booking is received, then you are informed about this possibility. Confirmation or cancellation occurs two weeks before the start of the course at the latest; you are immediately informed by email in either case.

Cancellation policy

In case of cancellation of a confirmed training session or attendance, the following conditions will apply:

● 15 days' notice or more: no charge
● 8 days to 14 days' notice: IpanemaTech will charge   50% of the price
● Less than 8 days' notice or no-show: IpanemaTech will charge 100% of the price

About Infovista

Infovista, the leader in modern network performance, provides complete visibility and unprecedented control to deliver brilliant experiences and maximum value with your network and applications. At the core of our approach are data and analytics, to give you real-time insights and make critical business decisions. Infovista offers a comprehensive line of solutions from radio network to enterprise to device throughout the lifecycle of your network. No other provider has this completeness of vision. Network operators worldwide depend on Infovista to deliver on the potential of their networks and applications to exceed user expectations every day. Know your network with Infovista.

Contact

Europe Headquarters

Telephone: 33 01 64 86 79 00
Fax: 33 01 64 86 79 79
Email: info@infovista.com
Sales Enquiries: 33 01 64 86 79 05

Asia-Pacific Headquarters

Telephone: 65 6449 7641
Fax: 65 6449 3054
Email: info@infovista.com

Americas Headquarters

Telephone: 1 855 323 5757
Fax: 1 703 707 1777
Email: info@infovista.com