# REQUEST FOR PROPOSAL (RFP)
# For the Provision of Technical Training Services in the area of Information Technology

| NAME & ADDRESS OF FIRM OR CONSORTIUM | DATE: August 13, 2021 |
|---|---|
|  | REFERENCE: **rfp-st27.2021** |

Dear Sir or Madam

We kindly ask you to submit your Proposal for the Provision of Technical Training Services in the area of Information Technology.

In preparing your proposal, please use the template in Annex 2 of this document.

Proposals must be submitted at the system time and date through :
https://etendering.partneragencies.org
BU Code :STP10
and Event ID number: 0000010139

Your Proposal must be expressed in Portuguese or English, and valid for a minimum period of 90 days

In the course of preparing your Proposal, it shall remain your responsibility to ensure that it reaches the address above on or before the deadline. Proposals that are received by UNDP after the deadline indicated above, for whatever reason, shall not be considered for evaluation. If you are submitting your Proposal by email, kindly ensure that they are signed and in the .pdf format, and free from any virus or corrupted files.

Services proposed shall be reviewed and evaluated based on completeness and compliance of the Proposal and responsiveness with the requirements of the RFP and all other annexes providing details of UNDP requirements.

The Proposal that complies with all of the requirements, meets all the evaluation criteria and offers the best value for money shall be selected and awarded the contract. Any offer that does not meet the requirements shall be rejected.

Any discrepancy between the unit price and the total price shall be re-computed by UNDP, and the unit price shall prevail, and the total price shall be corrected. If the Service Provider does not accept the final price based on UNDP's re-computation and correction of errors, its Proposal will be rejected.

No price variation due to escalation, inflation, fluctuation in exchange rates, or any other market factors shall be accepted by UNDP after it has received the Proposal.   At the time of Award of Contract or Purchase Order, UNDP reserves the right to vary (increase or decrease) the number of services and/or goods, by up to a maximum of twenty-five percent (25%) of the total offer, without any change in the unit price or other terms and conditions.

Any Contract or Purchase Order that will be issued as a result of this RFP shall be subject to the General Terms and Conditions attached hereto.  The mere act of submission of a Proposal implies that the Service Provider accepts without question the General Terms and Conditions of UNDP, herein attached as Annex 3.

Please be advised that UNDP is not bound to accept any Proposal, nor award a contract or Purchase Order, nor be responsible for any costs associated with a Service Providers preparation and submission of a Proposal, regardless of the outcome or the manner of conducting the selection process.

UNDP's vendor protest procedure is intended to afford an opportunity to appeal for persons or firms not awarded a Purchase Order or Contract in a competitive procurement process.  In the event that you believe you have not been fairly treated, you can find detailed information about vendor protest procedures in the following link:

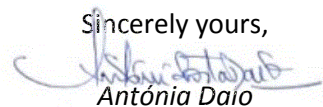https://www.undp.org/content/undp/en/home/procurement.html

UNDP encourages every prospective Service Provider to prevent and avoid conflicts of interest, by disclosing to UNDP if you, or any of your affiliates or personnel, were involved in the preparation of the requirements, design, cost estimates, and other information used in this RFP.

UNDP implements a zero tolerance on fraud and other prohibited practices and is committed to preventing, identifying and addressing all such acts and practices against UNDP, as well as third parties involved in UNDP activities.  UNDP expects its Service Providers to adhere to the UN Supplier Code of Conduct found in this link:

https://www.un.org/Depts/ptd/sites/www.un.org.Depts.ptd/files/files/attachment/page/pdf/unscc/conduct_english.pdf

Thank you and we look forward to receiving your Proposal.

Sincerely yours,

*Antónia Daío*
*Representante Residente Assistente/Operation*
8/16/2021

# Description of Requirements

| | |
|---|---|
| Context of the Requirement | MODERNIZATION OF THE JUSTICE SYSTEM |
| Implementing Partner of UNDP | - INIC<br>- Ministry of Justice, Public Administration and Human Rights<br>- Supreme Court of Justice<br>- General's Prosecutor's Office |
| Brief Description of the Required Services[1] | Technical training courses in the area of Information Technology |
| List and Description of Expected Outputs to be Delivered | It is intended to train in the following programmatic content :<br><br>- Fundamentals of Windows Server 2019<br>- Administration and Configuration of Windows Server 2019<br>- Administration of Microsoft Exchange Server 2019<br>- Check Point Administrator and Troubleshooting (with CCSA+CCTA certifications)<br>- VMware vSphere: Install, Configure, Manage (with VCP-DCV certifications)<br>- Implementing and Administering Cisco Solutions (CCNA certified)<br>- Computer Technical Academy (CompTIA A+ certified 220-1001 and 220-1002) |
| Person to Supervise the Work/Performance of the Service Provider | Marco Matias<br>*ICT Expert* |
| Frequency of Reporting | *At the end of each training module* |
| Progress Reporting Requirements | n/a |
| Location of work | ☐ São Tomé e Príncipe<br>☒ At Contractor's Location (live training) |
| Expected duration of work | 120 working days |
| Target start date | September 2021 (with the signture of contract) |
| Latest completion date | December 2021 |
| Travels Expected | N/A |

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[1] *A detailed TOR may be attached if the information listed in this Annex is not sufficient to fully describe the nature of the work and other details of the requirements.*

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| Special Security Requirements | ☐ Security Clearance from UN prior to travelling<br>☐ Completion of UN's Basic and Advanced Security Training<br>☐ Comprehensive Travel Insurance<br>☐ Others *[pls. specify]* |
| Facilities to be Provided by UNDP (i.e., must be excluded from Price Proposal) | ☐ Office space and facilities<br>☐ Land Transportation<br>☐ Others *[pls. specify]* |
| Implementation Schedule indicating breakdown and timing of activities/sub-activities | ☒ Required<br>☐ Not Required |
| Names and curriculum vitae of individuals who will be involved in completing the services | ☒ Required<br>☐ Not Required |
| Other documents to be submitted | ☒ Company CV including list of clients for whom you have provided service<br>☒ Registration document of the company<br>☒ CVs of the individuals involved in the completion of the services |
| Currency of Proposal | ☒ United States Dollars with change amount in DBS<br>☐ Euro<br>☐ Local Currency |
| Value Added Tax on Price Proposal[2] | ☐ must be inclusive of VAT and other applicable indirect taxes<br>☒ must be exclusive of VAT and other applicable indirect taxes |
| Validity Period of Proposals *(Counting for the last day of submission of quotes)* | ☐ 60 days<br>☒ 90 days<br>☐ 120 days<br>In exceptional circumstances, UNDP may request the Proposer to extend the validity of the Proposal beyond what has been initially indicated in this RFP.   The Proposal shall then confirm the extension in writing, without any modification whatsoever on the Proposal. |

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[2] *VAT exemption status varies from one country to another.  Pls. check whatever is applicable to the UNDP CO/BU requiring the service.*

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| Joint Venture, Consorcium or Association | If the Bidder is a group of legal entities that form or have formed a Joint Venture (JV), Consortium or Association for the Bid, they must confirm in their Bid that : (i) they have designated a party to act as the lead entity, duly vested with the authority to legally bind the members of the JV, Consortium or Association jointly and severally, which shall be evidenced by a duly authenticated Agreement between the legal entities, and submitted with the Proposal; and (ii) if they are awarded the contract, the contract will be entered into, by and between UNDP and the designated lead entity, which will act in the name and on behalf of all the member entities comprising the joint venture. |
| | After the Proposal Submission Deadline, the lead entity identified to represent the joint venture, consortium or association shall not be changed without the prior written consent of UNDP. |
| | The lead entity and the member entities of the JV, Consortium or Association will comply with the provisions of Clause 9 herein with respect to the submission of only one proposal. |
| | The description of the organization of the JV, consortium or association shall clearly define the expected role of each of the JV entities in the realization of the RFP requirements, both in the Proposal and in the JV, consortium or association agreement. All entities comprising the JV, Consortium or Association shall be subject to eligibility and qualification assessment by UNDP. |
| | A JV, Consortium or Association in presenting its background and experience must clearly differentiate between: <br>(a) those that have been undertaken jointly by the JV, Consortium or Association; and <br>(b) those that have been undertaken by the individual entities of the JV, Consortium or Association. |
| | Previous contracts completed by individual experts working privately, but who are permanently or have been temporarily associated with any of the member firms, cannot be claimed as the expertise of the JV, Consortium or Association or its members, but should only be claimed by the individual experts themselves in their submission of their individual credentials. |
| | JV, Consortium or Associations are encouraged for high-value, multi-sector requirements when the spectrum of skills and resources needed may not be available within a company |
| Partial Quotes | ☒ Not allowed <br>☐ Allowed |

| Payment Terms[3] | Deliverables | Percentage | Date | Condition for payment release |
|---|---|---|---|---|
| | Windows Server 2019 Fundamentals<br><br>Windows Server 2019 Administration and Configuration | 20% | Two (2) weeks after signing the contract | Within thirty (30) days after the following conditions have been met:<br>- UNDP's written acceptance (i.e., not mere receipt) of the quality of the deliverables; and<br><br>- Receipt of the Service Provider's invoice. |
| | Microsoft Exchange Server 2019 Administration<br><br>Check Point Administrator and Troubleshooting (with CCSA+CCTA certifications) | 20% | Eight (5) weeks after signing the contract | |
| | VMware vSphere: Install, Configure, Manage (VCP-DCV certified) | 40% | Thirteen (11) weeks after signing the contract | |
| | Implementing and Administering Cisco Solutions (with CCNA certification)<br><br>Computer Technician Academy (CompTIA A+ 220-1001 and 220-1002 certified) | 20% | Sixteen (16) weeks after signing the contract | |
| Person(s) who should review/inspect/approve completed deliverables/services and authorize disbursement of payment | Marco Matias<br>ICT Expert | | | |

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[3] *UNDP preference is not to pay any amount in advance upon signing of contract. If the Service Provider strictly requires payment in advance, it will be limited only up to 20% of the total price quoted. For any higher percentage, or any amount advanced exceeding $30,000, UNDP shall require the Service Provider to submit a bank guarantee or bank cheque payable to UNDP, in the same amount as the payment advanced by UNDP to the Service Provider.*

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| Type of contract to be signed | ☐ Purchase Order<br><br>☐ Institutional Contract<br><br>☒ Contract for Professional Services<br>☐ Long-Term Agreement[4]<br>☐ Other Type of Contract |
| Criteria for awarding the contract | ☐ Lowest Price among the technically compliant<br>☒ Highest Combined Score (based on weighting 70% technical bid and 30% financial bid)<br>☒ Full acceptance of the UNDP General Terms and Conditions of Contract (TGC). This is a mandatory criterion and cannot be eliminated regardless of the nature of the services requested. Failure to accept the GTCs may be grounds for rejection of the Proposal. |
| Documents to be submitted | Companies should follow the template in annex2 and include:<br><br>☒ Profile of the bidding company, as well as CVs of its team members, with attention to experience related to this consultancy<br><br>☒ Company registration document<br><br>☒ List of previous services done and at least 3 references.<br><br>☒ Initial methodology of the work<br><br>☒ Proposed tasks and number of work days allocated to that of each team member<br><br>☒ Complete work plan by activity and deliverable |
| Criteria for the evaluation of the proposal | **Technical Proposal (70%)**<br>☒ Company profile and experience in the field - 40 points<br>☒ Team profile with qualified personnel - 40 points<br>☒ Established partnerships with software and hardware manufacturers as a recognized and authorized training center - 20 points<br><br>**Financial Proposal (30%)**<br>Calculated based on the ratio of the lowest financial bid among all bids received by UNDP and technically accepted. |

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[4] *Minimum of one (1) year period and may be extended up to a maximum of three (3) years subject to satisfactory performance evaluation. This RFP may be used for LTAs if the annual purchases will not exceed $150,000.00.*

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| The UNDP will award the contract: | ☒ One and only one Service Provider<br>☐ One or more Service Providers |
| General Terms and Conditions of Contract[5] | ☒ General Terms and Conditions for contracts (goods and/or services)<br><br>☐ General terms and conditions for minimum contracts (services only, less than $50,000)<br><br>The applicable Terms and Conditions are available at:<br>http://www.undp.org/content/undp/en/home/procurement/business/how-we-buy.html |
| Annexs to this RFP [6] | ☒ Proposal Submission Form (Attachment 2)<br>☒ Detailed TDR[7] |
| Contact person for inquiries and clarifications (Written inquiries only)[8] | *Cesaltina Almeida*<br>*procurement.st@undp.org*<br><br>Any delay in UNDP's response will not be used as a reason to extend the deadline for submission of proposals, unless UNDP determines that such an extension is necessary and communicates a new deadline to the proposers. |
| Other information please specify | |

Marco Matias

ICT Expert

16-ago-2021

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[5] *Service Providers are alerted that non-acceptance of the terms of the General Terms and Conditions (GTC) may be grounds for disqualification from this procurement process.*
[6] *Where the information is available in the web, a URL for the information may simply be provided.*
[7] *A more detailed Terms of Reference in addition to the contents of this RFP may be attached hereto*
[8] *This contact person and address is officially designated by UNDP. If inquiries are sent to other person/s or address/es, even if they are UNDP staff, UNDP shall have no obligation to respond nor can UNDP confirm that the query was received.*

# FORM FOR SUBMITTING SERVICE PROVIDER'S PROPOSAL[9]

## (This Form must be submitted only using the Service Provider's Official Letterhead/Stationery[10])

[insert: *Location*].
[insert: *Date]*

To: [*insert: Name and Address of UNDP focal point*]

Dear Sir/Madam:

We, the undersigned, hereby offer to render the following services to UNDP in conformity with the requirements defined in the RFP dated *[specify date]* , and all of its attachments, as well as the provisions of the UNDP General Contract Terms and Conditions :

A. **Qualifications of the Service Provider**

> *The Service Provider must describe and explain how and why it is the best entity that can fulfill the requirements requested by UNDP, indicating the following:*
>
> *(a) Profile of the Bidding Company with attention to the experience related to this consultancy*
> *b) Registration documents of the Company*
> *c) List of previous services performed and at least 3 references*

B. **Proposed Methodology for the Completion of Services**

> *The Service Provider must describe how it will address/deliver the demands of the RFP; providing a detailed description of the essential performance characteristics, reporting conditions and quality assurance mechanisms that will be put in place, while demonstrating that the proposed methodology will be appropriate to the local conditions and context of the work.*

C. **Qualifications of Key Personnel**

> *If required by the RFP, the Service Provider must provide :*
> a) *Names and qualifications of the key personnel that will perform the services indicating who is Team Leader, who are supporting, etc.;*
> b) *CVs demonstrating qualifications must be submitted if required by the RFP; and*
> c) *Written confirmation from each personnel that they are available for the entire duration of the contract.*

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[9] *This serves as a guide to the Service Provider in preparing the Proposal.*
[10] *Official Letterhead/Stationery must indicate contact details – addresses, email, phone and fax numbers – for verification purposes*

D.    **Cost Breakdown per Deliverable\***

Interested parties are requested to provide the cost breakdown for the above given prices for each deliverable based on the following format. UNDP shall use the cost breakdown for the price reasonability assessment purposes as well as the calculation of price in the event that both parties have agreed to add new deliverables to the scope of services.

|   | Deliverables<br>*[list them as referred to in the RFP]* | Percentage of Total Price<br>*(Weight for payment)* | Price<br>*(Lump Sum, All Inclusive)* |
|---|---|---|---|
| 1 | Deliverable 1 | | |
| 2 | Deliverable 2 | | |
| 3 | …. | | |
|   | Total | 100% | |

*\*This shall be the basis of the payment tranches*


E.    **Cost Breakdown by Cost Component**  *[This is only an Example]*:

| Description of Activity | Remuneration per Unit of Time | Total Period of Engagement | No. of Personnel | Total Rate |
|---|---|---|---|---|
| **I. Personnel Services** | | | | |
| 1. Services from Home Office | | | | |
| a.  Expertise 1 | | | | |
| b.  Expertise 2 | | | | |
| 2. Services from Field Offices | | | | |
| a .  Expertise 1 | | | | |
| b.  Expertise 2 | | | | |
| 3.  Services from Overseas | | | | |
| a.  Expertise 1 | | | | |
| b.  Expertise 2 | | | | |
| **II. Out of Pocket Expenses** | | | | |
| 1.  Travel Costs | | | | |
| 2.  Daily Allowance | | | | |
| 3.  Communications | | | | |
| 4.  Reproduction | | | | |
| 5.  Equipment Lease | | | | |
| 6.  Others | | | | |
| **III. Other Related Costs** | | | | |

*[Name and Signature of the Service Provider's Authorized Person]*
*[Designation]*
*[Date]*

**Annex 3**

**<u>TERMS OF REFERENCE</u>**

1. **Context**

   a) It is intended to acquire the trainings presented below, with the programmatic contents and workload foreseen in the plans included in item 2 of this Annex and for the number of trainees and other specifications that each one indicates.

   b) The trainings must be given in the Portuguese language. The technical documentation to be made available and the certification exams, if any, may be in English.

   c) The competitor must be authorized by Microsoft, Cisco, VMWare, Checkpoint and COMPTIA as a training partner entity.

## 2. Specification of the training sessions

**Windows Server 2019 fundamentals**

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|---|---|
| **Training Unit:** Fundamentos de Windows Server 2019 | **Session:** Single module |
| **Duration:** 35 horas (horário laboral) | **Target Audience:** Windows systems administrators |
| **Trainning type:** Live Trainning | **N.º de trainees:** 7 |
| **Pre-requisites:** User-level knowledge of an operating system | |
| **General Objectives:**<br>To equip trainees with the necessary knowledge to be able to create, administer, and monitor Windows Server 2019-based computer networks. | |

| Planning the training session | | | | |
|---|---|---|---|---|
| Specific Objectives | Contents | Pedagogical methods and techniques | Resources | Evaluation |
| Know the Windows Server, its administration tools and its roles and features.<br><br>Configuration and administration of AD DS, DHCP and DNS roles.<br><br>Configuration and administration of local and remote storage. | **Introduction to Microsoft Windows Server 2019**<br>• Windows Server 2019<br>• Windows Server Roles and Server Manager<br>• Install the Windows Server 2019<br>• Upgrade and Migration<br><br>**Active Directory**<br>• What is a Directory service<br>• "Domain", "Tree", "Forest" and Trust relationships<br>• Objetos e Atributos<br>• "Containers" and "Organization Units"<br>• "Group Polices"<br>• "Domain Controller", "Global Catalog" and "Operations Masters" | Expositive Method<br><br>Interrogative Method<br><br>Active Method<br><br>Mixed theory and practice sessions, with description of the subjects by the trainer and experimentation on the personal computer.<br><br>Exercises and simulation of practical situations with individualized resolution | Computer and drawing table;<br><br>Software and hardware to deliver the sessions through live training. | Formative evaluation; |

| Configuration and administration of the virtualization system (Hyper-V) Using the monitoring tools | **Active Directory Domain Services (AD DS)**<br>• Computer account<br>• User account<br>• Groups<br><br>**AD DS Sites and Replication**<br>• Introduction<br>• Configure AD DS sites<br>• Configure replications on AD DS<br><br>**Implement security on Windows Server 2019**<br>• Authentication, Authorization and Auditing<br>• Secure folders and files<br>• Encriptation<br><br>**Group Policy**<br>• Introduction<br>• Implement and manage GPOs<br>• Manage users and computers with Group Policy<br><br>**Stoarge on Windows Server 2019**<br>• Configure local storage<br>• Identify technology of storage<br>• Manage Disks and Volumes<br><br>**Networks components**<br>• OSI model<br>• Cabling, NICs, Hubs, Switches and Routers<br><br>**Implement networks on IPv4**<br>• Addressing and configuring IPv4<br>• Manage conectivity and troubleshooting | | | |

|  | **Implement networks on IPv6**<br>• Addressing and configuring IPv6<br>• Manage conectivity and troubleshooting<br><br>**Implement DHCP**<br>• Introduction<br>• Install DHCP<br>• Manage and troubleshooting<br><br>**Implement DNS**<br>• Implement DNS servers<br>• Configure zones<br>• Configure and resolve names between DNS zones<br>• Integrate DNS with AD DS<br>• Manage and troubleshooting<br><br>**Implement VPNs**<br>• Introduction<br>• Implement VPNs<br><br>**Implement Virtualization**<br>• Introduction to Hyper-V<br>• Deploy Hyper-V<br>• Configure virtual networks (Virtual Switch Manager)<br>• Configure the virtual storage<br>• Configure and manage VMs<br><br>**Monitorization on Windows Server 2019**<br>• Monitorization tools |  |  |  |

**Windows Server 2019 Administration and Configuration**

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|---|---|---|---|
| **Training unit:** Windows Server 2019 Administration and Configuration | | **Sessions:** Single module | |
| **Duration:** 35 hours | | **Target audience:** Windows system administrators | |
| **Trainning type:** Live Trainning | | **N.º of trainees:** 7 | |
| **Pre requisites:** Attending the "Windows Server 2019 Fundamentals" course | | | |
| **General objectives:**<br>To equip trainees with the necessary knowledge to be able to create, administer, and monitor Windows Server 2019-based computer networks. | | | |

| Planning the training session | | | | |
|---|---|---|---|---|
| Specific Objectives | Contents | Pedagogical methods and techniques | Resources | Evaluation |
| Configuration and administration of storage technologies.<br><br>Configuration and administration of AD CS, AD FS, and AD RMS roles.<br><br>Configuration and administration of high availability systems. | **Implement enterprise storage solutions**<br>• Block- and file-level storage<br>• Fault Tolerance: Mirror and RAID<br>• Implementing Storage Spaces and Data Deduplication<br><br>**Implementing advanced networking technologies**<br>• Implementing Distribution File System<br>• Implementing Branch Cache<br>• Implementing Direct Access<br><br>**Active Directory Certification Services (AD CS)**<br>• Installing and Configuring Certificate Authorities<br>• Managing and Administering Cas<br>• Install and Manage Certificates | Expositive Method<br><br>Interrogative Method<br><br>Active Method<br><br>Mixed theory and practice sessions, with description of the subjects by the trainer and experimentation on the personal computer.<br><br>Exercises and simulation of practical situations with individualized resolution | Computer and drawing table;<br><br>Software and hardware to deliver the sessions through live training. | Formative evaluation; |

| | **Active Directory Federation Services (AD FS)**<br>• Install and Configure AD FS<br>• Web Application Proxy<br><br>**Active Directory Rights Management Services (AD RMS)**<br>• Installing and Configuring AD RMS<br>• Configure content protection<br><br>**High Availability and Disaster Recovery**<br>• Getting Started<br>• Windows Server Backup<br>• Network Load Balancing<br>• Failover Clustering<br><br>**Creating and Managing Installation Images**<br>• Introduction to "deployment images<br>• Create and Manage Installation Images via Microsoft Deployment Tools | | | |
| --- | --- | --- | --- | --- |

**Administration of Microsoft Exchange Server 2019**

| | | |
|---|---|---|
| **Training Unit:** Administration of Microsoft Exchange Server 2019 | | **Session:** Single module |
| **Duration:** 35 hours | | **Target Audience:** Exchange administrators |
| **Trainning type:** Live Trainning | | **N.º of trainees:** 2 |
| **Pre-requisites:** Minimum of 2 years in the management of Windows Server, AD DS e DNS; Advanced concepts of TCP/IP and SMTP; | | |
| **General Objectives:**<br>Equipping trainees with the necessary knowledge to be able to create, administer and monitor email systems based on Microsoft Exchange | | |

| Planning the training session | | | | |
|---|---|---|---|---|
| Specific Objectives | Contents | Pedagogical methods and techniques | Resources | Evaluation |
| Install Exchange Server.<br><br>Plan and configure storage for Exchange Server.<br><br>Create and manage multiple receiver objects on Exchange Server.<br><br>Perform container management and Exchange server management tasks using Exchange Server cmdlets.<br><br>Implement client access services on Exchange Server. | **Deploying Exchange Server**<br>• Overview of Exchange Server<br>• Exchange Server architecture<br>• Requirements for Exchange Server<br>• Deploying Exchange Server Exchange Server<br>• Exchange Server Management Tools<br><br>Lab: Deploying Exchange Server<br>• Evaluating requirements and prerequisites for an Exchange Server 2019 installation<br>• Deploying Exchange Server 2019<br>• Verifying Exchange Server functionality<br>• Installing Exchange Server 2019 on Windows Server Core 2019 (optional)<br><br>**Managing Exchange Server 2016 storage**<br>• Exchange Server mailbox databases<br>• Exchange Server storage | Expositive Method<br><br>Interrogative Method<br><br>Active Method<br><br>Mixed theory and practice sessions, with description of the subjects by the trainer and experimentation on the personal computer.<br><br>Exercises and simulation of practical situations with individualized resolution. | Computer and drawing table;<br><br>Software and hardware to deliver the sessions through live training. | Formative evaluation; |

| Manage high availability on Exchange Server. | • Configuring Exchange Server mailbox databases and storage | | | |
|---|---|---|---|---|
| Implement disaster recovery for Exchange Server. | Lab: Configuring Exchange Server storage<br>• Creating and configuring mailbox databases | | | |
| Configure and manage message transport on Exchange Server. | **Managing recipient objects**<br>• Managing user mailboxes<br>• Managing other types of mailboxes | | | |
| Configure message security on Exchange Server. | • Managing other recipients objects<br>• Configuring policies and adress lists | | | |
| Monitor and troubleshoot Exchange Server. | Lab: Managing recipient objects<br>• Configuring recipient objects<br>• Managing public folder mailboxes | | | |
| Configure role-based access control permissions on Exchange Server and configure audit logging for both administrators and users. | Lab: Configuring address lists and policies<br>• Managing email address policies<br>• Managing address lists and address book policies | | | |
| Implement and manage integration with Exchange Online. | **Managing recipients and Exchange servers by using Exchange Server cmdlets**<br>• Overview of the Exchange Management Shell<br>• Managing Exchange Servers by using Exchange Management Shell cmdlets<br>• Managing Exchange servers by using scripts | | | |
| | Lab : Managing Exchange Server and recipient objects by using Exchange Management Shell | | | |

|  |  | • Using Exchange Management Shell to manage recipients<br>• Using Exchange Management Shell to manage Exchange Server<br><br>**Implementing client connectivity**<br>• Configuring client access services<br>• Managing client access services<br>• Client connectivity in Exchange Server<br>• Configuring Outlook on the web<br>• Configuring mobile messaging<br><br>Lab : Configuring client access services<br>• Configuring namespaces for client access<br>• Configuring certificates for client access<br>• Configuring custom MailTips<br><br>Lab : Deploying and configuring client access services on Exchange Server<br>• Configuring Exchange Server for Outlook<br>• Configuring Outlook on the web<br>• Configuring Microsoft Exchange ActiveSync<br><br>**Managing high availability in Exchange Server**<br>• High availability on Exchange Server<br>• Configuring highly available mailbox databases<br>• Configuring high availability of Client Access services<br><br>Lab : Implementing DAGs<br>• Creating and configuring a DAG |  |  |  |

| | Lab : Implementing and testing high availability | | | |
|---|---|---|---|---|
| | • Deploying a high availability solution for Client Access services | | | |
| | • Testing the high availability configuration | | | |
| | | | | |
| | **Implementing disaster recovery for Exchange Server** | | | |
| | • Implementing Exchange Server backup | | | |
| | • Implementing Exchange Server recovery | | | |
| | | | | |
| | Lab: Backing up Exchange Server data | | | |
| | • Backing up an Exchange Server mailbox database | | | |
| | | | | |
| | Lab: Restoring Exchange Server data | | | |
| | • Restoring Exchange Server mailbox | | | |
| | • Restoring a database availability group (DAG) member (optional) | | | |
| | | | | |
| | **Configuring and managing message transport** | | | |
| | • Overview of message transport | | | |
| | • Configuring message transport | | | |
| | • Managing transport rules | | | |
| | | | | |
| | Lab: Configuring and managing message transport | | | |
| | • Configuring message transport | | | |
| | • Monitoring and verifying message delivery | | | |
| | • Configuring a disclaimer transport rule | | | |
| | • Configuring a DLP policy for financial data | | | |
| | | | | |
| | **Configuring message security** | | | |
| | • Deploying and managing an Edge Transport server for message security | | | |

| | |
|---|---|
| | • Implementing an antivirus solution for Exchange Server |
| | • Implementing an antispam solution for Exchange Server |

Lab: Configuring message security in Exchange Server
- Configuring and testing EdgeSync
- Configuring antivirus, antispam and malware protection features

**Monitoring and troubleshooting Exchange Server**
- Monitoring Exchange Server
- Troubleshooting Exchange Server

Lab: Monitoring and troubleshooting Exchange Server
- Monitoring Exchange Server
- Troubleshooting database availability
- Troubleshooting Client Access servers

**Securing and maintaining Exchange Server**
- Securing Exchange Server by using RBAC
- Configuring audit logging in Exchange Server
- Maintaining Exchange Server

Lab: Securing and maintaining Exchange Server
- Configuring Exchange Server permissions
- Configuring audit logging
- Maintaining Exchange Server

| | **Implementing and managing Exchange Online deployments**<br> &bull; Overview of Exchange Online and Office 365<br> &bull; Managing Exchange Online<br> &bull; Implementing the migration to Exchange Online<br> &bull; Managing a hybrid environment<br><br>Lab: Managing Exchange Online<br> &bull; Managing Exchange Online | | | |
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**Check Point Administrator and Troubleshooting (com certificações CCSA+CCTA)**

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| **Training unit:** Check Point Administrator and Troubleshooting CCSA+CCTA | **Session:** Single module |
| **Duration:** 35 hours | **Target audience:** Firewall administrators, system administrators, CISOs. |
| **Training type:** Live Trainning | **N.º of traineers:** 2 |
| **Pre-requisites:** General knowledge of TCP/IP; Advanced knowledge of Windows, UNIX, networking and Internet technologies; | |
| **General objectives:**<br>Equipping trainees with the necessary knowledge to be able to create, administer and monitor firewall systems based on Checkpoint technology | |

| Planning the training session | | | | |
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| Specific Objectives | Contents | Pedagogical methods and techniques | Resources | Evaluation |
| Provide an understanding of the concepts and skills required to configure the Check Point Security Gateway and the Blade Management Software<br><br>Perform analysis and resolution of problems related to Checkpoint systems | • Introduction to Check Point Technology<br>• Security Policy Management<br>• Policy Layers<br>• Check Point Security Solutions and Licensing<br>• Traffic Visibility<br>• Basic Concepts of VPN<br>• Managing User Access<br>• Working with ClusterXL<br>• Administrator Task Implementation<br>• An Introduction to Troubleshooting<br>• SmartConsole and Policy Management Troubleshooting<br>• Monitoring Logging Activity<br>• Troubleshooting Issues with NAT<br>• Understanding the Unified Access Control Policy<br>• Basic VPN Troubleshooting<br>• Monitoring ClusterXL Connections<br>• Understanding Identity Awareness | Expositive Method<br><br>Interrogative Method<br><br>Active Method<br><br>Mixed theory and practice sessions, with description of the subjects by the trainer and experimentation on the personal computer.<br><br>Exercises and simulation of practical situations with individualized resolution. | Computer and drawing table;<br><br>Software and hardware to deliver the sessions through live training. | Formative evaluation;<br><br>Certification exam Check Point Security Administrator (CCSA)<br><br>Certification exam Check Point Troubleshooting Administrator (CCTA) courses. |

**VMware vSphere: Install, Configure, Manage (com certificação VCP-DCV)**

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| **Unidade de formação:** VMware vSphere: Install, Configure, Manage (VWVSICM) | **Sessão:** Módulo único |
| **Duração:** 40 horas (horário laboral) | **Público-alvo:** Administradores de sistemas, Engenheiros de sistemas |
| **Tipo de formação:** Live Trainning | **N.º de formandos:** 2 |
| **Pré requisitos:** Administradores de sistemas com conhecimentos avançados de Windows e UNIX; Conhecimentos avançados de sistemas de armazenamento e rede. | |
| **Objetivos Gerais:**<br>Dotar os formandos dos conhecimentos necessários para poder criar, administrar e monitorizar sistemas de virtualização baseados em tecnologia VMWare | |

| Planning the training session | | | | |
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| Specific Objectives | Contents | Pedagogical methods and techniques | Resources | Evaluation |
| Describe the software-defined data center (SDDC)<br><br>Explain the vSphere components and their function in the infrastructure<br><br>Install and configure ESXi hosts<br><br>Deploy and configure VMware vCenter Server Appliance<br><br>Use VMware vSphere Client to manage the vCenter Server inventory and the | **Course Introduction**<br>• Introductions and course logistics<br>• Course objectives<br><br>**Introduction to vSphere and the Software-Defined Data Center**<br>• Explain basic virtualization concepts<br>• Describe how vSphere fits into the software-defined data center and the cloud infrastructure<br>• Explain how vSphere interacts with CPUs, memory, networks, and storage<br>• Recognize the user interfaces for accessing the vCenter Server system and ESXi hosts<br>• Describe the ESXi host architecture<br>• Navigate the Direct Console User Interface (DCUI) to configure an ESXi host<br>• Recognize ESXi host user account best practices<br>• Install an ESXi host | Expositive Method<br><br>Interrogative Method<br><br>Active Method<br><br>Mixed theory and practice sessions, with description of the subjects by the trainer and experimentation on the personal computer.<br><br>Exercises and simulation of practical situations with individualized resolution | Computer and drawing table;<br><br>Software and hardware to deliver the sessions through live training. | Avaliação formativa;<br><br>Exame de certificação VMware Certified Professional – Data Center Virtualization (VCP-DCV) |

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| vCenter Server configuration<br><br>Manage, monitor, back up, and protect vCenter Server Appliance<br><br>Create virtual networks with vSphere standard switches<br><br>Describe the storage technologies supported by vSphere<br><br>Configure virtual storage using iSCSI and NFS storage<br><br>Create and manage VMware vSphere® VMFS datastores<br><br>Use the vSphere Client to create virtual machines, templates, clones, and snapshots<br><br>Create a content library and deploy virtual machines | • Use VMware Host Client™ to configure ESXi host settings<br><br>**Virtual Machines**<br>• Create and provision a virtual machine<br>• Explain the importance of VMware Tools™<br>• Install VMware Tools<br>• Identify the files that make up a VM<br>• Recognize the components of a VM<br>• Recognize virtual devices supported by a VM<br>• Describe the benefits and use cases for containers<br>• Identify the parts of a container system<br><br>**vCenter Server**<br>• Describe the vCenter Server architecture<br>• Discuss how ESXi hosts communicate with vCenter Server<br>• Deploy and configure vCenter Server Appliance<br>• Use vSphere Client to manage the vCenter Server inventory<br>• Add data center, organizational objects, and hosts to vCenter Server<br>• Use roles and permissions to enable users to access objects in the vCenter Server inventory<br>• Back up vCenter Server Appliance<br>• Monitor vCenter Server tasks, events, and appliance health<br>• Use VMware vCenter Server® High Availability to protect a vCenter Server Appliance | | | |

| from templates in the library<br><br>Manage virtual machine resource use<br><br>Migrate virtual machines with VMware vSphere vMotion and VMware vSphere Storage vMotion<br><br>Create and manage a vSphere cluster that is enabled with VMware vSphere High Availability and VMware vSphere Distributed Resource Scheduler<br><br>Discuss solutions for managing the vSphere life cycle<br><br>Use VMware vSphere Lifecycle Manager to perform upgrades to ESXi hosts and virtual machines | **Configuring and Managing Virtual Networks**<br>• Create and manage standard switches<br>• Describe the virtual switch connection types<br>• Configure virtual switch security, traffic-shaping, and load-balancing policies<br>• Compare vSphere distributed switches and standard switches<br><br>**Configuring and Managing Virtual Storage**<br>• Identify storage protocols and storage device types<br>• Discuss ESXi hosts using iSCSI, NFS, and Fibre Channel storage<br>• Create and manage VMFS and NFS datastores<br>• Explain how multipathing works with iSCSI, NFS, and Fibre Channel storage<br>• Recognize the components of a VMware vSAN configuration<br><br>**Virtual Machine Management**<br>• Use templates and cloning to deploy new virtual machines<br>• Modify and manage virtual machines<br>• Create a content library and deploy virtual machines from templates in the library<br>• Use customization specification files to customize a new virtual machine<br>• Perform vSphere vMotion and vSphere Storage vMotion migrations<br>• Describe the Enhanced vMotion Compatibility feature<br>• Create and manage virtual machine snapshots | | | |

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| | • Examine the features and functions of VMware vSphere Replication<br>• Describe the benefits of VMware vSphere Storage APIs – Data Protection<br><br>**Resource Management and Monitoring**<br>• Discuss CPU and memory concepts in a virtualized environment<br>• Describe what overcommitment of a resource means<br>• Describe methods for optimizing CPU and memory usage<br>• Use various tools to monitor resource use<br>• Create and use alarms to report certain conditions or events<br><br>**vSphere Clusters**<br>• Describe the functions of a vSphere DRS cluster<br>• Create a vSphere DRS cluster<br>• Monitor a vSphere cluster configuration<br>• Describe options for making a vSphere environment highly available<br>• Explain the vSphere HA architecture<br>• Configure and manage a vSphere HA cluster<br>• Examine the features and functions of VMware vSphere Fault Tolerance<br><br>**vSphere Lifecycle Management**<br>• Recognize the importance of vCenter Server Update Planner<br>• Describe how VMware vSphere Lifecycle Manager works | | | |

| | <ul><li>Describe how to update ESXi hosts using baselines</li><li>Validate ESXi host compliance using a cluster image</li><li>Describe how to upgrade VMware Tools and VM hardware</li></ul> | | | |
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**Implementing and Administering Cisco Solutions (with certification CCNA)**

| **Trainning unit:** Implementing and Administering Cisco Solutions (CCNA) | **Session:** Single Module |
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| **Duration:** 35 hours | **Target audience:** Network administrators, system engineers, network engineers |
| **Trainning type:** Live Trainning | **N.º of trainees:** 2 |
| **Pre requisites:** Advanced knowledge of computer networks. | |
| **Genral objectives:**<br>To provide trainees with the necessary knowledge to be able to install, configure and administer computer networks | |

| Planning the training session | | | | |
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| Specific Objectives | Contents | Pedagogical methods and techniques | Resources | Evaluation |
| Configure network components such as switches, routers, and wireless LAN controllers;<br><br>Manage network devices;<br><br>Identify basic security threats. | • Exploring the Functions of Networking<br>• Introducing the Host-To-Host Communications Model<br>• Operating Cisco IOS Software<br>• Introducing LANs<br>• Exploring the TCP/IP Link Layer<br>• Starting a Switch<br>• Introducing the TCP/IP Internet Layer, IPv4 Addressing, and Subnets<br>• Explaining the TCP/IP Transport Layer and Application Layer<br>• Exploring the Functions of Routing<br>• Configuring a Cisco Router<br>• Exploring the Packet Delivery Process<br>• Troubleshooting a Simple Network<br>• Introducing Basic IPv6<br>• Configuring Static Routing<br>• Implementing VLANs and Trunks<br>• Routing Between VLANs | Expositive Method<br><br>Interrogative Method<br><br>Active Method<br><br>Mixed theory and practice sessions, with description of the subjects by the trainer and experimentation on the personal computer.<br><br>Exercises and simulation of practical situations with individualized resolution. | Computer and drawing table;<br><br>Software and hardware to deliver the sessions through live training. | Formative evaluation;<br><br>Certification exam 200-301 Cisco Certified Network Associate (CCNA) |

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| | - Introducing OSPF<br>- Building Redundant Switched Topologies<br>- Improving Redundant Switched Topologies with EtherChannel<br>- Exploring Layer 3 Redundancy<br>- Introducing WAN Technologies<br>- Explaining Basics of ACL<br>- Enabling Internet Connectivity<br>- Introducing QoS<br>- Explaining Wireless Fundamentals<br>- Introducing Architectures and Virtualization<br>- Explaining the Evolution of Intelligent Networks<br>- Introducing System Monitoring<br>- Managing Cisco Devices<br>- Examining the Security Threat Landscape<br>- Implementing Threat Defense Technologies<br>- Implementing Device Hardening<br><br>**Labs:**<br>- Get Started with Cisco CLI<br>- Observe How a Switch Operates<br>- Perform Basic Switch Configuration<br>- Inspect TCP/IP Applications<br>- Configure an Interface on a Cisco Router<br>- Configure and Verify Layer 2 Discovery Protocols<br>- Configure Default Gateway<br>- Explore Packet Forwarding<br>- Troubleshoot Switch Media and Port Issues<br>- Troubleshoot Port Duplex Issues<br>- Configure Basic IPv6 Connectivity |

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| | • Configure and Verify IPv4 Static Routes<br>• Configure IPv6 Static Routes<br>• Configure VLAN and Trunk<br>• Configure a Router on a Stick<br>• Configure and Verify Single-Area OSPF<br>• Configure and Verify EtherChannel<br>• Configure and Verify IPv4 ACLs<br>• Configure a Provider-Assigned IPv4 Address<br>• Configure Static NAT<br>• Configure Dynamic NAT and PAT<br>• Log into the WLC<br>• Monitor the WLC<br>• Configure a Dynamic (VLAN) Interface<br>• Configure a DHCP Scope<br>• Configure a WLAN<br>• Define a RADIUS Server<br>• Explore Management Options<br>• Explore the Cisco DNA Center<br>• Configure and Verify NTP | | | |

**Academy Computer Technician (with certification in CompTIA A+ 220-1001 and 220-1002)**

| **Training Unit:** Academy Computer Technician | **Sessions:** 7 technical sessions, 1 soft skills session, 1 technical seminar |
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| **Duration:** 144 hours | **Target audience:** Computer technicians, network and systems technicians |
| **Trainning type:** Live Trainning | **N.º of trainnes:** 2 |
| **Pre requisites:** Knowledge of technical English. The trainee should have computer skills in user's perspective. | |
| **General objectives:**<br>To provide trainees with the necessary knowledge to be able to perform the functions of network and systems technicians | |

| Planning the training session | | | | |
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| Specific Objectives | Contents | Pedagogical methods and techniques | Resources | Evaluation |
| Identify, configure, operate and troubleshoot hardware and network components.<br><br>Identify, configure, operate and troubleshoot components associated with user helpdesk<br><br>Identify, configure, operate and troubleshoot components associated with the enterprise helpdesk | **Hardware**<br>• Introduction<br>• Hardware for Computers and Laptops<br>• Input and Output Devices<br>• Portable and Mobile Computing<br>• Computer Assembly<br>• Cabling<br><br>**Networking and Communications**<br>• Introduction to Networking<br>• Computer Networking<br>• OSI and TCP/IP Models<br>• Ethernet and Devices<br>• Router Configuration<br>• Introduction to Network Services<br><br>**User Helpdesk**<br>• Operating Systems<br>• Introduction to Windows<br>• Windows Configuration | Expositive Method<br><br>Interrogative Method<br><br>Active Method<br><br>Mixed theory and practice sessions, with description of the subjects by the trainer and experimentation on the personal computer.<br><br>Exercises and simulation of practical situations with individualized resolution | Computer and drawing table;<br><br>Software and hardware to deliver the sessions through live training. | Formative evaluation;<br><br>Certification exam CompTIA A+ 220-1001<br><br>Certification exam CompTIA A+ 220-1002 |

| To understand the concepts associated to computer security<br><br>To understand the concepts associated to ITIL | • Introduction to Linux<br>• Linux Configuration<br>• Introduction to Mac OS<br>• Operating Systems Maintenance<br>• Mobile Devices<br><br>**Enterprise Helpdesk**<br>• Servers<br>• Introduction to Windows Server 2016<br>• Windows Server 2016 Services<br>• Ubuntu Server<br>• Virtualization<br>• Cloud Computing<br><br>**IT Security**<br>• General Notions<br>• Data Defense<br>• Defense of Applications<br>• Host Defense<br>• Protection of the Internal Network<br>• Perimeter Protection<br>• Phisichal protection<br>• Procedures and policies<br><br>**Seminar – ITIL Service Desk**<br>• ITIL best practices applied to Helpdesk teams<br><br>**Personal Marketing and Communication**<br>• Personal Marketing: definition and exploration of the concept<br>• Identifying the importance of Personal Marketing in personal and professional growth | | | |
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| | <ul><li>Swot analysis applied to personal and professional objectives</li><li>Active approach to the labor market</li></ul>**CompTIA A+ Essentials**<ul><li>Supporting Operating Systems</li><li>Installing and Configuring PC Components</li><li>Installing, Configuring, and Troubleshooting Display and Multimedia Devices</li><li>Installing, Configuring, and Troubleshooting Storage Devices</li><li>Installing, Configuring, and Troubleshooting Internal System Components</li><li>Installing, Configuring, and Maintaining Operating Systems</li><li>Maintaining and Troubleshooting Microsoft Windows</li><li>Network Infrastructure Concepts</li><li>Configuring and Troubleshooting Networks</li><li>Managing Users, Workstations, and Shared Resources</li><li>Implementing Client Virtualization and Cloud Computing</li><li>Security Concepts</li><li>Securing Workstations and Data</li><li>Troubleshooting Workstation Security Issues</li><li>Supporting and Troubleshooting Laptops</li><li>Supporting and Troubleshooting Mobile Devices</li><li>Installing, Configuring, and Troubleshooting Print Devices</li><li>Implementing Operational Procedures</li></ul> | | | |

| | **Troubleshooting** | | | |
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| | • Pratical session for solving real problems that happen in companies. | | | |
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| | **Automating Administration with Windows PowerShell** | | | |
| | • Getting Started with Windows PowerShell | | | |
| | • Working with the Pipeline | | | |
| | • Understanding How the Pipeline Works | | | |
| | • Using PSProviders and PSDrives | | | |
| | • Formatting Output | | | |
| | • Querying Management Information by Using WMI and CIM | | | |
| | • Preparing for Scripting | | | |
| | • Moving From a Command to Script to Module | | | |
| | • Administering Remote Computers | | | |
| | • Putting it All Together | | | |
| | • Using Background Jobs and Scheduled Jobs | | | |
| | • Using Profiles and Advanced PowerShell Techniques | | | |
| | | | | |
| | **Preparation to the CompTIA A+ certification exams** | | | |