

BLIBLIOGRAFIA

Bibliografía

Fortinet. (n.d.). OSI model.

<https://www.fortinet.com/lat/resources/cyberglossary/osi-model>

Fortinet. (n.d.). TCP/IP model.

<https://www.fortinet.com/lat/resources/cyberglossary/tcp-ip>

Fortinet. (2024). TCP/IP model vs. OSI model.

<https://www.fortinet.com/lat/resources/cyberglossary/tcp-ip-model-vs-osi-model>

Concepto.de. (s.f.). Red LAN. <https://concepto.de/red-lan/>

Audiotecnologías. (s.f.). Normas y estándares de cableado estructurado.

<https://audiotecnologias.com/descargas/Normas.pdf>

Cuti Uruguay. (2022). Cableado estructurado: el medio de transporte para las comunicaciones en redes LAN. <https://cuti.org.uy/blog/de-socios-blog/cableado-estructurado-el-medio-de-transporte-para-las-comunicaciones-en-redes-lan/>

IES San Clemente. (s.f.). Medios de transmisión.

https://manuais.pages.iessanclemente.net/apuntes/1.redes/_index.files/11-MEDIOS_TRANSMISION.pdf

RackOnline. (s.f.). ¿Qué es un sistema de cableado estructurado?.

<https://www.rackonline.es/content/que-es-un-sistema-de-cableado-estructurado>

Redestelecom. (2023). Cableado estructurado: qué es, tipos y utilidades.

<https://www.redestelecom.es/infraestructuras/cableado-estructurado-que-es-tipos-y-utilidades/>

Tailwind Voice & Data. (2023). What are structured cabling standards?.

<https://www.tailwindvoiceanddata.com/blog/what-are-structured-cabling-standards>

Gobierno del Estado de Tabasco. (s.f.). Manual para aplicar la norma TIA/EIA para Cableado Estructurado. <https://tabasco.gob.mx/sites/default/files/Manual-para-aplicar-la-norma-TIA-EIA-para-Cableado-Estructurado.pdf>

Aurum Informática. (s.f.). Cableado de red: Tipos. <https://www.aurum-informatica.es/blog/cableado-de-red-tipos>

Definición.de. (s.f.). Cable de red. <https://definicion.de/cable-de-red/>

Boto. (s.f.). Cable de red para exteriores NFT UTP Cat6. <https://www.boto.com.bo/product-page/cable-de-red-para-exteriores-nft-utp-cat6-cca-24awg-35-cobre-bnutp-421>

FS.com. (s.f.). Patch Cable vs. Crossover Cable: What Is the Difference? <https://www.fs.com/es/blog/patch-cable-vs-crossover-cable-what-is-the-difference-4767.html>

Cisco. (s.f.). ¿Qué es un switch de red? Recuperado de https://www.cisco.com/c/es_mx/solutions/small-business/resource-center/networking/network-switch-how.html

Cisco. (s.f.). Tipos de switches de red. Recuperado de https://www.cisco.com/c/es_mx/solutions/small-business/resource-center/networking/understanding-the-different-types-of-network-switches.html

Universidad Nacional de La Plata. (s.f.). Switch, routers y access point: Conceptos generales. Recuperado de https://www.trabajosocial.unlp.edu.ar/uploads/docs/switch_routers_y_acces_point_conceptos_generales.pdf

Instaladores de Telecom Hoy. (s.f.). ¿Qué es un switch de red y cómo funciona? Recuperado de <https://www.instaladoresdetelecomhoy.com/que-es-un-switch-de-red-y-como-funciona/>

Cisco. (s.f.). ¿Qué es un router? Recuperado de <https://www.cisco.com>

AVG. (s.f.). Funciones básicas de un router. Recuperado de <https://www.avg.com>

Cisco. (s.f.). "¿Qué es un Access Point?". Recuperado de https://www.cisco.com/c/es_mx/solutions/small-business/resource-center/networking/what-is-access-point.html

Juniper Networks. (s.f.). "Understanding Wireless Access Points". Recuperado de <https://www.juniper.net/us/en/research-topics/what-is-an-access-point-in-networking.html>

YMANT. (s.f.). "¿Qué es un AP (Access Point) y qué usos y modos tiene?". Recuperado de <https://www.ymant.com/blog/que-es-un-ap-access-point-y-que-usos-y-modos-tiene/>

IEEE 802.11 Working Group. (2020). "IEEE Standard for Information Technology-Wireless LAN Medium Access Control (MAC) and Physical Layer (PHY) Specifications"

RedesZone. (2022). "VLAN: Tipos y configuración". Recuperado de <https://www.redeszone.net/tutoriales/redes-cable/vlan-tipos-configuracion/>

IBM Documentation. (2021). "Redes de área local virtuales". Recuperado de <https://www.ibm.com/docs/es/aix/7.1.0?topic=cards-virtual-local-area-networks>

WatchGuard Technologies. (2023). "Acerca de las VLANs". Recuperado de https://www.watchguard.com/help/docs/fireware/12/es-419/content/es-419/networksetup/vlans_about_c.html

ABCXperts. (2022). "Introducción a las VLANs: ¿Qué son y por qué son importantes?". Recuperado de <https://abcxperts.com/introduccion-a-las-vlans-que-son-y-por-que-son-importantes/>

CCNACisco. (s.f.). "Curso de IPv4 desde cero". Recuperado de <https://ccnadesdecero.com/curso/ipv4/>

Hostwinds. (s.f.). "Clases IPv4: ¿Qué son y cómo se usan?". Recuperado de <https://www.hostwinds.es/blog/ipv4-classes-what-are-they-and-how-are-they-used>

OEA. (2009). "Protocolo IPv4". Recuperado de https://www.oas.org/en/citel/infocitel/2009/junio/protocolo2_e.asp

Arsys. (s.f.). ¿Qué es y para qué sirve un servidor DHCP? <https://www.arsys.es/blog/que-es-y-para-que-sirve-un-servidor-dhcp>

ManageEngine. (s.f.). Guía del servidor DHCP. <https://www.manageengine.com/latam/oputils/servidor-dhcp.html>

OpenWebinars. (s.f.). ¿Qué es un servidor DHCP? <https://openwebinars.net/blog/que-es-un-servidor-dhcp/>

ANSI/TIA. (2018). Telecommunications Cabling Standard — Commercial Building Telecommunications Cabling Standard (ANSI/TIA-568.0-D). Telecommunications Industry Association. <https://www.tiaonline.org>

ISO/IEC. (2017). Information technology — Generic cabling for customer premises — Part 1: General requirements (ISO/IEC 11801-1:2017). International Organization for Standardization. <https://www.iso.org/standard/66183.html>

IEEE. (2018). IEEE Standard for Ethernet (IEEE 802.3-2018). Institute of Electrical and Electronics Engineers. https://standards.ieee.org/standard/802_3-2018.html

Fortinet. (2024). TCP/IP model vs. OSI model. <https://www.fortinet.com/lat/resources/cyberglossary/tcp-ip-model-vs-osi-model>

Concepto.de. (s.f.). Red LAN. <https://concepto.de/red-lan/>

Tokio School. (s.f.). Topologías de red: tipos y características principales.

<https://www.tokioschool.com/noticias/topologias-red>

Redestelecom. (2023). Cableado estructurado: qué es, tipos y utilidades.

<https://www.redestelecom.es/infraestructuras/cableado-estructurado-que-es-tipos-y-utilidades/>

RackOnline. (s.f.). ¿Qué es un sistema de cableado estructurado?.

<https://www.rackonline.es/content/que-es-un-sistema-de-cableado-estructurado>

Tailwind Voice & Data. (2023). What are structured cabling standards?.

<https://www.tailwindvoiceanddata.com/blog/what-are-structured-cabling-standards>

SecureW2. (n.d.). Adopt WPA3 Enterprise. SecureW2.

<https://www.securew2.com/blog/adopt-wpa3-enterprise>

TechTarget. (n.d.). WPA3. TechTarget.

<https://www.techtarget.com/searchsecurity/definition/WPA3>

FS. (2021). WPA3 Security: Why Your Enterprise Business Needs It. FS.

<https://www.fs.com/es/blog/wpa3-security-why-your-enterprise-business-needs-it-18144.html>

Meraki. (n.d.). WPA3 Encryption and Configuration Guide. Cisco Meraki.

[https://documentation.meraki.com/MR/Wi-Fi Basics and Best Practices/WPA3 Encryption and Configuration Guide](https://documentation.meraki.com/MR/Wi-Fi_Basics_and_Best_Practices/WPA3_Encryption_and_Configuration_Guide)

INCIBE. (2020). WPA3: El protocolo de seguridad, configurar en tu router.

INCIBE. <https://www.incibe.es/ciudadania/blog/wpa3-el-protocolo-de-seguridad-configurar-en-tu-router>

Acero, A. (2010). Proyecto Fin de Carrera: Diseño de una red de comunicaciones para la Universidad de Sevilla. Universidad de Sevilla.

<https://biblus.us.es/bibing/proyectos/abreproy/12446/fichero/PFC-2446-ACERO.pdf>

Cevallos, J. (2010). Diseño e implementación de una red de datos para la Universidad Politécnica Salesiana. Escuela Politécnica Nacional.

<https://bibdigital.epn.edu.ec/bitstream/15000/4390/1/CD-4002.pdf>

Quest. (n.d.). What is Active Directory?. Quest. <https://www.quest.com/mx-es/solutions/active-directory/what-is-active-directory.aspx>

TechTarget. (n.d.). Active Directory. TechTarget. <https://www.techtarget.com/searchwindowsserver/definition/Active-Directory>

Delinea. (n.d.). What is Active Directory?. Delinea. <http://delinea.com/what-is/active-directory>

Seobility. (s. f.). Hostname. <https://www.seobility.net/es/wiki/Hostname>

Ryte. (s. f.). Hostname. <https://es.ryte.com/wiki/Hostname>

Raiola Networks. (s. f.). ¿Qué es un hostname? <https://raiolanetworks.com/ayuda/que-es-un-hostname/>

Cisco Systems. (2020). Spanning Tree Protocol (STP) Convergence and Enhancements. <https://www.cisco.com/c/en/us/support/docs/lan-switching/spanning-tree-protocol/24062-146.html>

AccuEnergy. (s. f.). Rapid Spanning Tree Protocol (RSTP). <https://www.accuenergy.com/support/reference-directory/rapid-spanning-tree-protocol-rstp/>

Meraki. (s. f.). Spanning Tree Protocol (STP) Overview. [https://documentation.meraki.com/MS/Port_and_VLAN_Configuration/Spanning_Tree_Protocol_\(STP\)_Overview](https://documentation.meraki.com/MS/Port_and_VLAN_Configuration/Spanning_Tree_Protocol_(STP)_Overview)

LearnCisco. (s. f.). STP Protocol Types.

<https://www.learncisco.net/courses/icnd-2/vlans-and-spanning-tree/stp-protocol-types.html>

TP-Link. (s. f.). What is RSTP?. <https://www.tp-link.com/es/support/faq/3426/>

Auvik. (2021). OSPF Protocol Explained.

<https://www.auvik.com/franklyit/blog/ospf-protocol-explained/>

Huawei. (s. f.). OSPF. [https://info.support.huawei.com/info-](https://info.support.huawei.com/info-finder/encyclopedia/en/OSPF.html)

[finder/encyclopedia/en/OSPF.html](https://info.support.huawei.com/info-finder/encyclopedia/en/OSPF.html)

NetworkLessons. (s. f.). Basic OSPF Configuration.

<https://networklessons.com/ospf/basic-ospf-configuration>

Juniper Networks. (s. f.). OSPF Overview.

<https://www.juniper.net/documentation/mx/es/software/junos/ospf/topics/topic-map/ospf-overview.html>

Fortinet. (2022). ¿Qué es un firewall?

<https://www.fortinet.com/lat/resources/cyberglossary/firewall>

Kaspersky. (2023). Definición de firewall.

<https://latam.kaspersky.com/resource-center/definitions/firewall>

Sophos. (2023). Firewalls: Seguridad esencial explicada.

<https://www.sophos.com/es-es/cybersecurity-explained/firewall>

Technet Bolivia. (s.f.). Cable canal PVC 19×39 mm. Technet Bolivia.

<https://technetbolivia.com.bo/productos/cable-canal-pvc-19x39-mm/>

Cable Norte SRL. (s.f.). Canaleta ranurada 60×40mm. Cable Norte SRL.

<https://cablenortesrl.com/producto/canaleta-ranurada-60x40mm/>

PVL. (s.f.). Cable F UTP Cat 6a 10 Gigabit 23 AWG 4 Pares Cubierta CMR Furukawa 23370005. PVL.com.bo. <https://pvl.com.bo/producto/cable-f-utp-cat-6a-10-gigabit-23-awg-4-pares-cubierta-cmr-furukawa-23370005/>

Gaestopas. (s.f.). Latiguillo Cat6a UTP Grupo. Gaestopas.com. <https://www.gaestopas.com/es/cableado-estructurado/latiguillo-cat6a-utp-grupo>

Toten. (s.f.). *Rack microperforado de 32U, ancho 600mm, profundidad 600mm (Modelo GS-6632-9801XSB)*. PVL Bolivia. <https://pvl.com.bo/producto/rack-microperforado-de-32u-ancho-600mm-profundidad-600mm-toten-gs-6632-9801xsb/>

Cisco. (2024). Cisco Catalyst 9300 Series Switches Data Sheet. Recuperado de <https://www.cisco.com/c/en/us/products/collateral/switches/catalyst-9300-series-switches/nb-06-cat9300-ser-data-sheet-cte-en.html>

IBM. (2021). *What is high availability?* IBM Think Topics. <https://www.ibm.com/think/topics/high-availability>

Red Hat. (2022). *¿Qué es la alta disponibilidad?* Red Hat Topics. <https://www.redhat.com/es/topics/linux/what-is-high-availability>

TechTarget. (2023). *High availability*. SearchDataCenter. <https://www.techtarget.com/searchdatacenter/definition/high-availability>

SecureW2. (n.d.). Adopt WPA3 Enterprise. <https://www.securew2.com/blog/adopt-wpa3-enterprise>

TechTarget. (n.d.). WPA3. <https://www.techtarget.com/searchsecurity/definition/WPA3>

FS. (2021). WPA3 Security: Why Your Enterprise Business Needs It. <https://www.fs.com/es/blog/wpa3-security-why-your-enterprise-business-needs-it-18144.html>

Meraki. (n.d.). WPA3 Encryption and Configuration Guide.

[https://documentation.meraki.com/MR/Wi-Fi Basics and Best Practices/WPA3 Encryption and Configuration Guide](https://documentation.meraki.com/MR/Wi-Fi_Basics_and_Best_Practices/WPA3_Encryption_and_Configuration_Guide)

INCIBE. (2020). WPA3: El protocolo de seguridad, configurar en tu router.

<https://www.incibe.es/ciudadania/blog/wpa3-el-protocolo-de-seguridad-configurar-en-tu-router>

Acero, A. (2010). Proyecto Fin de Carrera: Diseño de una red de comunicaciones para la Universidad de Sevilla.

<https://biblus.us.es/bibing/proyectos/abreproy/12446/fichero/PFC-2446-ACERO.pdf>

Cevallos, J. (2010). Diseño e implementación de una red de datos para la Universidad Politécnica Salesiana.

<https://bibdigital.epn.edu.ec/bitstream/15000/4390/1/CD-4002.pdf>

Quest. (n.d.). What is Active Directory?. <https://www.quest.com/mx-es/solutions/active-directory/what-is-active-directory.aspx>

TechTarget. (n.d.). Active Directory.

<https://www.techtarget.com/searchwindowsserver/definition/Active-Directory>

Delinea. (n.d.). What is Active Directory?. <http://delinea.com/what-is/active-directory>

Seobility. (s. f.). Hostname. <https://www.seobility.net/es/wiki/Hostname>

Ryte. (s. f.). Hostname. <https://es.ryte.com/wiki/Hostname>

Raiola Networks. (s. f.). ¿Qué es un hostname?

<https://raiolanetworks.com/ayuda/que-es-un-hostname/>

Cisco Systems. (2020). Spanning Tree Protocol (STP) Convergence and Enhancements. <https://www.cisco.com/c/en/us/support/docs/lan-switching/spanning-tree-protocol/24062-146.html>

AccuEnergy. (s. f.). Rapid Spanning Tree Protocol (RSTP).

<https://www.accuenergy.com/support/reference-directory/rapid-spanning-tree-protocol-rstp/>

Meraki. (s. f.). Spanning Tree Protocol (STP) Overview.

[https://documentation.meraki.com/MS/Port_and_VLAN_Configuration/Spanning_Tree_Protocol_\(STP\)_Overview](https://documentation.meraki.com/MS/Port_and_VLAN_Configuration/Spanning_Tree_Protocol_(STP)_Overview)

LearnCisco. (s. f.). STP Protocol Types. [https://www.learnCisco.net/c](https://www.learnCisco.net/courses/icnd-2/vlans-and-spanning-tree/stp-protocol-types.html)

[ourses/icnd-2/vlans-and-spanning-tree/stp-protocol-types.html](https://www.learnCisco.net/courses/icnd-2/vlans-and-spanning-tree/stp-protocol-types.html)

TP-Link. (s. f.). What is RSTP?. <https://www.tp-link.com/es/support/faq/3426/>

Auvik. (2021). OSPF Protocol Explained.

<https://www.auvik.com/franklyit/blog/ospf-protocol-explained/>

Huawei. (s. f.). OSPF. [https://info.support.huawei.com/info-](https://info.support.huawei.com/info-finder/encyclopedia/en/OSPF.html)

[finder/encyclopedia/en/OSPF.html](https://info.support.huawei.com/info-finder/encyclopedia/en/OSPF.html)

NetworkLessons. (s. f.). Basic OSPF Configuration.

<https://networklessons.com/ospf/basic-ospf-configuration>

Juniper Networks. (s. f.). OSPF Overview.

<https://www.juniper.net/documentation/mx/es/software/junos/ospf/topics/topic-map/ospf-overview.html>

Fortinet. (2022). ¿Qué es un firewall?

<https://www.fortinet.com/lat/resources/cyberglossary/firewall>

Kaspersky. (2023). Definición de firewall.

<https://latam.kaspersky.com/resource-center/definitions/firewall>

Sophos. (2023). Firewalls: Seguridad esencial explicada.

<https://www.sophos.com/es-es/cybersecurity-explained/firewall>

Technet Bolivia. (s.f.). Cable canal PVC 19×39 mm.

<https://technetbolivia.com.bo/productos/cable-canal-pvc-19x39-mm/>

Cable Norte SRL. (s.f.). Canaleta ranurada 60×40mm.

<https://cablenortesrl.com/producto/canaleta-ranurada-60x40mm/>

PVL. (s.f.). Cable F UTP Cat 6a 10 Gigabit 23 AWG 4 Pares Cubierta CMR

Furukawa 23370005. <https://pvl.com.bo/producto/cable-f-utp-cat-6a-10-gigabit-23-awg-4-pares-cubierta-cmr-furukawa-23370005/>

Gaestopas. (s.f.). Latiguillo Cat6a UTP Grupo.

<https://www.gaestopas.com/es/cableado-estructurado/latiguillo-cat6a-utp-grupo>

Toten. (s.f.). Rack microperforado de 32U, ancho 600mm, profundidad 600mm

(Modelo GS-6632-9801XSB). <https://pvl.com.bo/producto/rack-microperforado-de-32u-ancho-600mm-profundidad-600mm-toten-gs-6632-9801xsb/>

IBM. (2021). What is high availability? [https://www.ibm.com/think/topics/high-](https://www.ibm.com/think/topics/high-availability)

[availability](https://www.ibm.com/think/topics/high-availability)

Red Hat. (2022). ¿Qué es la alta disponibilidad?

<https://www.redhat.com/es/topics/linux/what-is-high-availability>

TechTarget. (2023). High availability.

<https://www.techtarget.com/searchdatacenter/definition/high-availability>

Oppenheimer, P. (2010). Top-Down Network Design (3rd ed.). Cisco Press.

Olifer, N., & Olifer, V. (2006). Computer Networks: Principles, Technologies and Protocols for Network Design. Wiley.

Syscom. (2023). Controlador USB relé USB 8 salidas. Recuperado el [fecha de acceso] de <https://www.syscom.mx/products/189669>

eBay. (2023). Relé USB 8 salidas controlador tarjeta USB 8 canales.

Recuperado el [fecha de acceso] de <https://www.ebay.com/itm/196207728426>

Router-Switch.com. (s.f.). *Cisco Catalyst 1000-48P-4G-L 48-Port Gigabit PoE Managed Network Switch*. <https://www.router-switch.com/c1000-48p-4g-l.html>

Router-Switch.com. (s.f.). *Cisco Catalyst 1000-24P-4G-L 24-Port Gigabit PoE + Managed Network Switch*. Recuperado de <https://www.router-switch.com/c1000-24p-4g-l.html>

Ubuy. (s.f.). *Ethernet wall plate with single port RJ45 Cat6 female-to-female jack inline coupler*.
<https://www.ubuy.com.bo/es/product/E668JVI-4-pack-ethernet-wall-plate-with-single-port-rj45-cat6-female-to-female-jack-inline-coupler-plates-ethernet-cable-faceplates-white>

Ubuy. (s.f.). *WI4YOU Cat6 wall plate (2-port) with metal-shielded Cat6A keystone jack and low-voltage mounting bracket*.
<https://www.ubuy.com.bo/es/product/QHU8ZXM-wi4you-cat6-wall-plate-2-port-single-gang-rj45-wall-plate-white-with-low-voltage-mounting-bracket-metal-shielded-cat6a-keystone-jack-for-ethernet-syst>

Promelsa. (s. f.). *Bandeja rejilla BF2R 150x105mm EZ1000 L=3 metros*
[Página web]. Recuperado {cur_date}, de <https://www.promelsa.com.pe/1040360-bandeja-rejilla-bf2r-60x65-ez1000-l-3-metros.html>