



**HIRSCHMANN IT**

A **BELDEN** BRAND

# Hirschmann IT Certification Program

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Your Success is in Good Hands

## First-hand Technical Knowledge - Made to Measure Worldwide

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Dear Network Experts,

New technologies bring new opportunities, and mastering them is essential for success. The smooth operation of your network applications relies on the skills and knowledge of your employees. We are here to assist you in building or enhancing this expertise, turning theory into practical application.

Our trainers are top-notch network specialists with extensive real-world IT support experience. The certification not only validates your IT skills but also showcases a comprehensive understanding of the field. Hirschmann IT certification goes beyond proving your competence to employers; it ensures that your network is managed by a certified industry expert.

For resellers and distributors, highlighting the proven expertise of their support engineers and designers can inspire confidence in their customers. It's the perfect moment to gain proficiency in Hirschmann IT and secure your network's future.

Wishing you all the best in your every success.

## HIRSCHMANN IT

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## Introduction

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In the rapidly growing world of computing, software, networking, and infrastructure are getting more and more interlinked together every day. A network professional needs to know the latest networking technologies, security, automation, and its applications.

The newly introduced series of Hirschmann IT certifications can aid learners to attain the desired level of knowledge based on what they want to achieve. It covers a breadth of topics, including introduction of enterprise networking products devices, network fundamentals, IP services, security fundamentals, protocol functionality, and applications.

These training courses are designed to help participants to excel in the certifications, with detailed case studies of real-world network environment.





# The Hirschmann IT Certification Scheme - Unique Proof of Competence

## Why a Certification?

In the modern IT landscape, the most effective defense against costly downtime is the guarantee of qualified on-site specialists and external service providers who can swiftly resolve issues or prevent them altogether. Not every self-proclaimed “Expert” possesses the necessary skills. A Hirschmann IT certification is a testament to true, in-depth expertise.

## Who Can Become Certified?

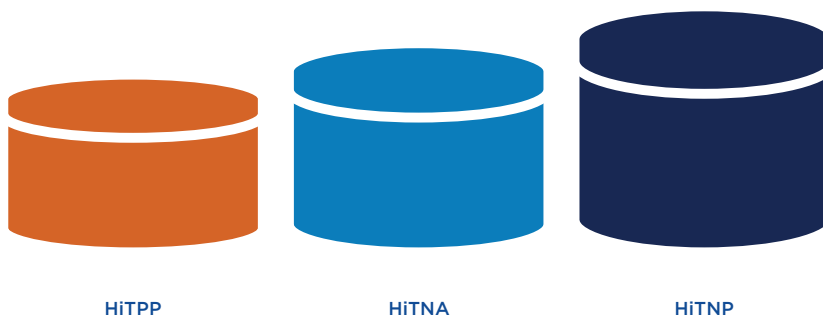
Knowledge is in the heads of individuals. This is why we certify people, and not companies. The Hirschmann IT certification exams are open to everyone.

## What Types of Certification are Possible?

The Hirschmann IT Certification Scheme is divided into two distinct areas: Certified Product Know-how and Certified Technology Know-how. Three qualification levels are available. The “Product Professional” certificate proves solid basic knowledge, the “Network Associate” a more profound understanding, and the “Network Professional” a comprehensive expertise in the respective field. A complete overview is shown below.

## Do I have to attend the Training Courses?

Yes. The Hirschmann IT training program includes 3 training courses which are prerequisite as part of your preparation for respective exams (recognized by the certification logos). Acquiring knowledge will help you understand more and better demonstrating competence. Attending a training course is mandatory for taking an exam.



## Contact Us

Please [submit](#) your inquiry  
For course registration,  
please visit [Belden Academy](#)

## Certified Product Know-how

<b>Certificate</b>	HiTPP - Hirschmann IT Product Professional
<b>Description</b>	The fundamental course offering introductory topics of network fundamentals, switching - routing protocols, traffic control with enterprise networking product's installation and configuration details.
<b>Prerequisite</b>	None

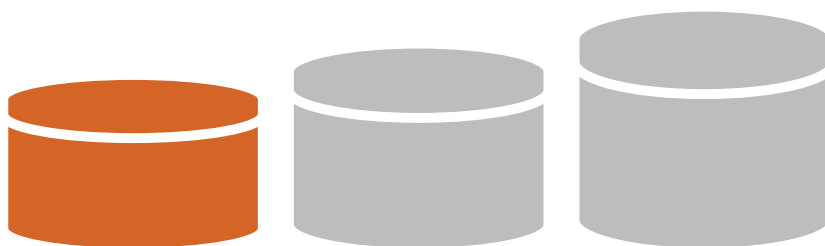
## Certified Technology Know-how

<b>Certificate</b>	HiTNA - Hirschmann IT Network Associate	HiTNP - Hirschmann IT Network Professional
<b>Description</b>	Renders on product offerings, accessibility, switching foundation, LAN networking, multicast protocols, virtualization and security.	Delivers in-depth knowledge of topics from overlaying certification dealing with advanced concepts of VxLAN, MAD, MP- BGP, MPLS L3 VPN, ACL, QOS, control plane protection etc.
<b>Prerequisite</b>	Completion of Hirschmann IT Product Professional	Completion of Hirschmann IT Network Associate



# HiTPP – Hirschmann IT Product Professional

<b>Prerequisite</b>	None
<b>Objective</b>	Basic network knowledge
<b>Course Content</b>	<p><b>Basic Network Knowledge</b></p> <ul style="list-style-type: none"><li>• Introduction about Belden</li><li>• OSI model</li><li>• MTS CLI and Web management</li><li>• MAC address</li><li>• Ethernet address</li><li>• Network and VLSM</li><li>• IP network address</li></ul> <p><b>Traffic Control</b></p> <ul style="list-style-type: none"><li>• Storm Control</li><li>• VLAN</li><li>• QoS</li></ul> <p><b>Routing Protocol</b></p> <ul style="list-style-type: none"><li>• RIP</li><li>• OSPF</li></ul> <p><b>Network Availability</b></p> <ul style="list-style-type: none"><li>• Topologies</li><li>• STP</li><li>• RSTP</li><li>• LAG</li><li>• ERPS</li></ul> <p><b>Product</b></p> <ul style="list-style-type: none"><li>• MTS Introduction</li><li>• Port and Extension Module</li><li>• Software Feature</li><li>• MTS8000 Chassis and Modules</li><li>• Password Recovery</li><li>• Recovery Chassis from Monitor Mode</li></ul>
<b>Duration</b>	3 Days
<b>Validity</b>	2 Years
<b>Certification</b>	Mandatory to take the Hirschmann IT Product Professional certificate examination.

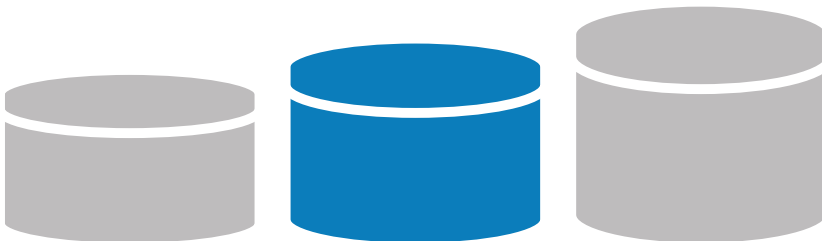


HiTPP



# HiTNA – Hirschmann IT Network Associate

<b>Prerequisite</b>	Completion of Hirschmann IT Product Professional
<b>Objective</b>	Intermediate network knowledge
<b>Course Content</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>Management</b></p> <ul style="list-style-type: none"> <li>• Panel LED and System Start up</li> <li>• Use Console, Telnet and SSH</li> <li>• Use case: Use console cable and SSH to login box</li> </ul> <p><b>LAN Networking</b></p> <ul style="list-style-type: none"> <li>• STP Introduction</li> <li>• Broadcast Storming</li> <li>• MAC Address Flapping</li> <li>• STP Mechanism</li> <li>• STP Select: Bridge and Port</li> <li>• STP Enhancement</li> <li>• RSTP</li> <li>• MSTP</li> <li>• ERPS Introduction</li> <li>• ERPS Role and Concept</li> <li>• Use case: ERPS</li> <li>• LACP Introduction</li> <li>• LACP Configuration</li> <li>• Use case: LACP</li> <li>• VRRP</li> <li>• VRRP Preempt</li> <li>• Use case: Hirschmann coupling works with MTS and VRRP</li> </ul> <p><b>Security</b></p> <ul style="list-style-type: none"> <li>• 802.1X</li> <li>• Radius Server</li> <li>• Logging to Remote Server</li> <li>• Use case: 802.1x demo with Cisco ACS4.x server</li> </ul> </div> <div style="width: 45%;"> <p><b>Switching Foundation</b></p> <ul style="list-style-type: none"> <li>• Switching Forwarding Introduction</li> <li>• Learning MAC address</li> <li>• Unicast Forwarding</li> <li>• Flooding Forwarding</li> <li>• Broadcast Forwarding</li> <li>• VLAN Concept</li> <li>• VLAN Frame</li> <li>• Link Type: Access and Trunk</li> <li>• VLAN Tag</li> <li>• Inter-VLAN Communication</li> <li>• Use case: VLAN across switches</li> </ul> <p><b>Virtualization</b></p> <ul style="list-style-type: none"> <li>• VST Introduction</li> <li>• VST Concept</li> <li>• VST Configuration</li> <li>• Use case: Stacking switches</li> </ul> <p><b>Routing Protocol</b></p> <ul style="list-style-type: none"> <li>• OSPF Introduction</li> <li>• OSPF Mechanism</li> <li>• OSPF Link Type</li> <li>• PIM Introduction</li> <li>• PIM SM Roles</li> <li>• PIM SM Configuration</li> <li>• IGMP Snooping</li> <li>• Use case: PIM-SM + IGMP with VLC multicast pulling</li> </ul> </div> </div>
<b>Duration</b>	4 Days
<b>Validity</b>	2 Years
<b>Certification</b>	Mandatory to take the Hirschmann IT Network Associate certificate examination.



HiTNA

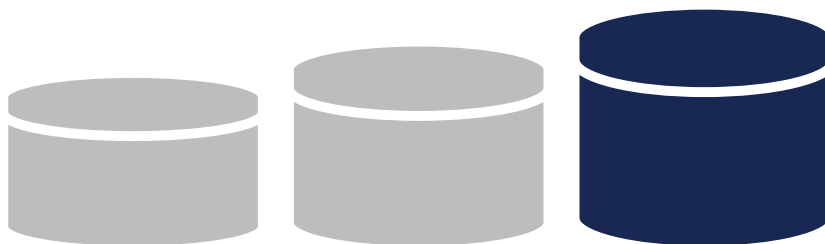






# HiTNP – Hirschmann IT Network Professional

<b>Prerequisite</b>	Completion of Hirschmann IT Network Associate
<b>Objective</b>	Professional network knowledge
<b>Course Content</b>	<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><b>Switching Foundation</b></p> <ul style="list-style-type: none"> <li>• VxLAN Introduction</li> <li>• VxLAN Concept</li> <li>• VxLAN Configuration</li> <li>• Use case: Static VxLAN configuration</li> </ul> <p><b>Virtualization</b></p> <ul style="list-style-type: none"> <li>• VST Enhancement: MAD</li> <li>• MAD Mechanism</li> <li>• MAD Configuration</li> <li>• Use case: VST with MAD</li> </ul> <p><b>Security</b></p> <ul style="list-style-type: none"> <li>• ACL</li> <li>• Storm Control</li> <li>• Control Plane Protection</li> <li>• NNI/UNI Isolation</li> <li>• Use case: Storm control</li> </ul> <p><b>QoS</b></p> <ul style="list-style-type: none"> <li>• QoS Introduction</li> <li>• CBWFQ</li> <li>• PQ</li> <li>• LLQ</li> <li>• Shaping</li> <li>• HQoS</li> <li>• Use case: Shaping on interface</li> </ul> </div> <div style="width: 45%;"> <p><b>Routing Protocol</b></p> <ul style="list-style-type: none"> <li>• OSPF Redistribution Control</li> <li>• OSPF Multiple Area</li> <li>• OSPF LSA Control</li> <li>• Use case: Multi-area OSPF with NSSA area</li> <li>• ISIS Introduction</li> <li>• BGP Introduction</li> <li>• BGP Roles and Basic Concept</li> <li>• EBGP and IBGP</li> <li>• BGP Peers and Notification</li> <li>• BGP Loop-Prevent</li> <li>• BGP Attributes and Routing Roles</li> <li>• BGP RR</li> <li>• Use case: Works with OSPF</li> <li>• MPBGP Concept</li> <li>• MPLS L3 VPN</li> <li>• EVPN Concept</li> <li>• EVPN Configuration</li> <li>• Use case: EVPN demo, MPBGP with OSPF</li> </ul> </div> </div>
<b>Duration</b>	5 Days
<b>Validity</b>	2 Years
<b>Certification</b>	Mandatory to take the Hirschmann IT Network Professional certificate examination.



HiTNP







## Consulting

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### Leverage our Experience

Hirschmann IT is one of the most prominent and widely experienced manufacturers of total networking solutions based on Industrial OT Ethernet and IT applications. With Belden's strong R&D capability and experiences on network solutions, new IT networking product portfolios with more powerful features, more flexibility and larger bandwidth are offered. As an expert in system components, accessories and unified management software with a global presence, we make available our comprehensive expertise to our clients. At every point in the process you receive exactly the amount of support you require. It makes sense to include Hirschmann IT in your plans right from the beginning. Good advice is only expensive when it comes too late.

### Consultation

We also know that consultation, support and training require more than just a general understanding of the products, technologies and market trends. It requires a solid understanding of the application and the ability to help provide the type of support that is needed. We assist you during technology selection,

prepare migration concepts, and advise you on the suitable deployment of management tools.

### Design

Hirschmann IT eliminates your design challenges because we understand the issues detected surrounding the design and operation of networks in IT/OT situation and mission-critical environments. Our engineers are available to work with you to deliver high-availability networks that meet your enterprise-wide IT needs. Whether it's designing systems for Greenfield facilities, or integrating into existing IT environments, our highly trained staff lifts the design burden from your shoulders to ours.

### Project Management

Together with our partners we also provide specialized support during the implementation of your network projects. At the commissioning stage we will provide you with complete technical documentation, as well as product familiarization for your employees.

## Support

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### On Demand and in Demand

If necessary, our internal and external support specialists help ensure the flawless functioning of your network system from day one through long-term technical advice and short-term troubleshooting. Ask us about our services.

### Commissioning

The Hirschmann IT Support Team is at your disposal at any time for professional installation and configuration of your equipment. We will support you and your employees during on-site commissioning or undertake the complete installation.

### Maintenance

We can design a maintenance concept tailored exactly to your needs, and if required can implement the concept in cooperation with our specially trained and certified partners.



# About Belden

Belden Inc., a global leader in high quality, end-to-end signal transmission solutions, delivers a comprehensive product portfolio designed to meet the mission-critical network infrastructure needs of industrial, enterprise and broadcast markets. With innovative solutions targeted at reliable and secure transmission of rapidly growing amounts of data, audio and video needed for today's applications, Belden is at the center of the global transformation to a connected world. Founded in 1902, the company is headquartered in St. Louis, USA, and has manufacturing capabilities in North and South America, Europe and Asia.

For more information, visit us at:  
**[belden.com](https://www.belden.com)**

follow us on **LinkedIn**  
and **Facebook**