ICND1 V3.0 - INTERCONNECTING CISCO NETWORKING DEVICES, PART 1

Course Code: 4548

Gain a foundational understanding of core Cisco routing and switching technologies and prepare for the CCENT certification exam (100-105 ICND1).

EXCLUSIVE TO GLOBAL KNOWLEDGE - Accelerate your Cisco learning experience with complimentary access to the IT Skills Video On-Demand Library, Boson practice exams, Introduction to Cybersecurity digital learning course, course recordings, IT Resource Library, and digital courseware.

Learn more

Learn how to install, operate, configure and verify a basic IPv4 and IPv6 network, including configuring a LAN switch, configuring an IP router, managing network devices, and identifying basic security threats.

This course will enable you to:

• Prepare for the entry-level CCENT certification, which is the foundation for Cisco associate-level certifications.
• Obtain foundational understanding of network layers 1-3 that are applicable to core routing and switching, plus other advanced technologies.
• Understand the interactions and network functions of firewalls, wireless controllers and access points.
• Support Cisco network deployments and maintain these services in an on-going operational network.

Why take ICND1?

The goal of the course is to develop basic routing and switching networking skills to configure, monitor and troubleshoot Cisco networks. It’s also step one in a two-step journey to achieve the CCNA Routing and Switching certification. The follow-on course, Interconnecting Cisco Networking Devices, Part 2 (ICND2) v3.0, covers topics in more depth and teaches you how to perform basic troubleshooting steps.
in enterprise branch office networks.

Course exclusives

• Lab time:
  ✦ 60 hours total over 180 days
  ✦ Labs are one to one and on Virtual Machines
  ✦ Be sure to logout of labs during class. Any remaining lab time can be used after class for additional practice and review

What You'll Learn

• Network fundamentals and build simple LANs
• Establish Internet connectivity
• Manage and secure network devices
• Expand small- to medium-sized networks
• IPv6 basics

Who Needs to Attend

• Network administrators
• Network support engineers
• Network engineer associate
• Network specialist
• Network analyst
• Cisco channel partners
• Individuals pursuing the CCNA Routing and Switching certification

Prerequisites

• Basic computer literacy
• Basic PC operating system navigation skills
• Basic Internet usage skills
• Basic address knowledge
ICND1 V3.0 - INTERCONNECTING CISCO NETWORKING DEVICES, PART 1

Course Code: 4548

| CLASSROOM LIVE | $3,595 USD | 5 days |

Classroom Live Outline

1. Building a Simple Network
   - Functions of Networking
   - Host-to-Host Communications Model
   - Introducing LANs
   - Operating Cisco IOS Software
   - Starting a Switch
   - Ethernet and Switch Operation
   - Troubleshooting Common Switch Media Issues

2. Establishing Internet Connectivity
   - TCP/IP Internet Layer
   - IP Addressing and Subnets
   - TCP/IP Transport Layer
   - Functions of Routing
   - Configuring a Cisco Router
   - Packet Delivery Process
   - Enabling Static Routing
   - Basics of ACL
   - Enabling Internet Connectivity

3. Summary Challenge
   - Establish Internet Connectivity
   - Troubleshoot Internet Connectivity

4. Building a Medium-Sized Network
   - Implementing VLANs and Trunks
   - Routing Between VLANs
   - Using a Cisco IOS Network Device as a DHCP Server
   - Implementing RIPv2
5. Network Device Management and Security
   • Securing Administrative Access
   • Implementing Device Hardening
   • Configuring System Message Logging
   • Managing Cisco Devices
   • Licensing

6. Summary Challenge
   • Implementing a Medium-Sized Network
   • Troubleshooting a Medium-Sized Network

7. Introducing IPv6
   • Introducing Basic IPv6
   • IPv6 Operation
   • Configuring IPv6 Static Routes

Classroom Live Labs
Discovery Lab 1: Get Started with Cisco CLI
Discovery Lab 2: Perform Basic Switch Configuration
Discovery Lab 3: Observe How a Switch Operates
Discovery Lab 4: Troubleshoot Switch Media and Port Issues
Discovery Lab 5: Inspect TCP/IP Applications
Discovery Lab 6: Start with Cisco Router Configuration
Discovery Lab 7: Configure Cisco Discovery Protocol
Discovery Lab 8: Configure Default Gateway
Discovery Lab 9: Exploration of Packet Forwarding
Discovery Lab 10: Configure and Verify Static Routes
Discovery Lab 11: Configure and Verify ACLs
Discovery Lab 12: Configure a Provider-Assigned IP Address
Discovery Lab 13: Configure Static NAT
Discovery Lab 14: Configure Dynamic NAT and PAT
Discovery Lab 15: Troubleshoot NAT
Discovery Lab 16: Configure VLAN and Trunk
Discovery Lab 17: Configure a Router on a Stick
Discovery Lab 18: Configure a Cisco Router as a DHCP Server
Discovery Lab 19: Troubleshoot DHCP Issues
Discovery Lab 20: Configure and Verify RIPv2
Discovery Lab 21: Troubleshoot RIPv2
Discovery Lab 22: Enhance Security of Initial Configuration
Discovery Lab 23: Limit Remote Access Connectivity
Discovery Lab 24: Configure and Verify Port Security
Discovery Lab 25: Configure and Verify NTP
Discovery Lab 26: Configure Syslog
Discovery Lab 27: Configure Basic IPv6 Connectivity
Discovery Lab 28: Configure IPv6 Static Routes

Challenge Lab 1: Implementing the Initial Switch Configuration
Challenge Lab 2: Implementing the Initial Router Configuration
Challenge Lab 3: Implementing Static Routing
Challenge Lab 5: Implementing PAT
Challenge Lab 6: Summary Challenge Lab: 1
Challenge Lab 7: Summary Challenge Lab: 2
Challenge Lab 8: Troubleshooting VLANs and Trunk
Challenge Lab 9: Implementing Multiple VLANs and Basic Routing Between the VLANs
Challenge Lab 10: Implementing a DHCP Server in on a Cisco IOS Device
Challenge Lab 11: Implementing RIPv2
Challenge Lab 12: Securing Device Administrative Access
Challenge Lab 13: Implementing Device Hardening
Challenge Lab 14: Configuring System Message Logging
Challenge Lab 15: Summary Challenge Lab: 3
Challenge Lab 16: Summary Challenge Lab: 4
Challenge Lab 17: Implement IPv6 Static Routing

Jul 15 - 19, 2019 | 8:30 AM - 4:30 PM | DALLAS, TX
Jul 22 - 26, 2019 | 8:30 AM - 4:30 PM | WASHINGTON, DC
Jul 29 - Aug 2, 2019 | 8:30 AM - 4:30 PM | ATLANTA, GA
Aug 5 - 9, 2019 | 8:30 AM - 4:30 PM | RESEARCH TRIANGLE PARK, NC
Aug 12 - 16, 2019 | 8:30 AM - 4:30 PM | COLUMBUS, OH
Aug 12 - 16, 2019 | 8:30 AM - 4:30 PM | DALLAS, TX
Aug 19 - 23, 2019 | 8:30 AM - 4:30 PM | MORRISTOWN, NJ
Aug 19 - 23, 2019 | 8:30 AM - 4:30 PM | WASHINGTON, DC
Aug 26 - 30, 2019 | 8:30 AM - 4:30 PM | SAN JOSE, CA
Sep 9 - 13, 2019 | 8:30 AM - 4:30 PM | COLUMBIA, MD
Sep 16 - 20, 2019 | 8:30 AM - 4:30 PM | CHICAGO (DOWNTOWN), IL
Sep 16 - 20, 2019 | 8:30 AM - 4:30 PM | DALLAS, TX
Sep 16 - 20, 2019 | 8:30 AM - 4:30 PM | RESEARCH TRIANGLE PARK, NC
Sep 23 - 27, 2019 | 8:30 AM - 4:30 PM | NEW YORK CITY, NY
Sep 23 - 27, 2019 | 8:30 AM - 4:30 PM | SAN JOSE, CA
Sep 30 - Oct 4, 2019 | 8:30 AM - 4:30 PM | ATLANTA, GA
Sep 30 - Oct 4, 2019 | 8:30 AM - 4:30 PM | HOUSTON, TX
Sep 30 - Oct 4, 2019 | 8:30 AM - 4:30 PM | MORRISTOWN, NJ
Oct 7 - 11, 2019 | 8:30 AM - 4:30 PM | DALLAS, TX
Oct 7 - 11, 2019 | 8:30 AM - 4:30 PM | DULLES, VA
Oct 7 - 11, 2019 | 8:30 AM - 4:30 PM | SAN JOSE, CA
Oct 14 - 18, 2019 | 8:30 AM - 4:30 PM | ORLANDO, FL
Oct 14 - 18, 2019 | 8:30 AM - 4:30 PM | RESEARCH TRIANGLE PARK, NC
Oct 14 - 18, 2019 | 8:30 AM - 4:30 PM | WASHINGTON, DC
Oct 21 - 25, 2019 | 8:30 AM - 4:30 PM | CHICAGO (DOWNTOWN), IL
Oct 28 - Nov 1, 2019 | 8:30 AM - 4:30 PM | BOSTON, MA
Oct 28 - Nov 1, 2019 | 8:30 AM - 4:30 PM | COLUMBIA, MD
Oct 28 - Nov 1, 2019 | 8:30 AM - 4:30 PM | LOS ANGELES, CA
Oct 28 - Nov 1, 2019 | 8:30 AM - 4:30 PM | NEW YORK CITY, NY
Nov 4 - 8, 2019 | 8:30 AM - 4:30 PM | DALLAS, TX
Nov 4 - 8, 2019 | 8:30 AM - 4:30 PM | HOUSTON, TX
Nov 11 - 15, 2019 | 8:30 AM - 4:30 PM | MORRISTOWN, NJ
Nov 11 - 15, 2019 | 8:30 AM - 4:30 PM | WASHINGTON, DC
Nov 18 - 22, 2019 | 8:30 AM - 4:30 PM | ATLANTA, GA
Nov 18 - 22, 2019 | 8:30 AM - 4:30 PM | RESEARCH TRIANGLE PARK, NC
Nov 18 - 22, 2019 | 8:30 AM - 4:30 PM | SAN JOSE, CA
Dec 9 - 13, 2019 | 8:30 AM - 4:30 PM | CHICAGO (DOWNTOWN), IL
Dec 9 - 13, 2019 | 8:30 AM - 4:30 PM | DALLAS, TX
Dec 9 - 13, 2019 | 8:30 AM - 4:30 PM | MINNEAPOLIS, MN
Dec 16 - 20, 2019 | 8:30 AM - 4:30 PM | HOUSTON, TX
Dec 16 - 20, 2019 | 8:30 AM - 4:30 PM | NEW YORK CITY, NY
Dec 16 - 20, 2019 | 8:30 AM - 4:30 PM | WASHINGTON, DC

Nov 25 - 29, 2019 | 8:30 AM - 4:30 PM | CHICAGO (DOWNTOWN), IL
Virtual Classroom Live Outline

1. Building a Simple Network
   - Functions of Networking
   - Host-to-Host Communications Model
   - Introducing LANs
   - Operating Cisco IOS Software
   - Starting a Switch
   - Ethernet and Switch Operation
   - Troubleshooting Common Switch Media Issues

2. Establishing Internet Connectivity
   - TCP/IP Internet Layer
   - IP Addressing and Subnets
   - TCP/IP Transport Layer
   - Functions of Routing
   - Configuring a Cisco Router
   - Packet Delivery Process
   - Enabling Static Routing
   - Basics of ACL
   - Enabling Internet Connectivity

3. Summary Challenge
   - Establish Internet Connectivity
   - Troubleshoot Internet Connectivity

4. Building a Medium-Sized Network
   - Implementing VLANs and Trunks
   - Routing Between VLANs
   - Using a Cisco IOS Network Device as a DHCP Server
   - Implementing RIPv2
5. Network Device Management and Security
   • Securing Administrative Access
   • Implementing Device Hardening
   • Configuring System Message Logging
   • Managing Cisco Devices
   • Licensing

6. Summary Challenge
   • Implementing a Medium-Sized Network
   • Troubleshooting a Medium-Sized Network

7. Introducing IPv6
   • Introducing Basic IPv6
   • IPv6 Operation
   • Configuring IPv6 Static Routes

Virtual Classroom Live Labs
Discovery Lab 1: Get Started with Cisco CLI
Discovery Lab 2: Perform Basic Switch Configuration
Discovery Lab 3: Observe How a Switch Operates
Discovery Lab 4: Troubleshoot Switch Media and Port Issues
Discovery Lab 5: Inspect TCP/IP Applications
Discovery Lab 6: Start with Cisco Router Configuration
Discovery Lab 7: Configure Cisco Discovery Protocol
Discovery Lab 8: Configure Default Gateway
Discovery Lab 9: Exploration of Packet Forwarding
Discovery Lab 10: Configure and Verify Static Routes
Discovery Lab 11: Configure and Verify ACLs
Discovery Lab 12: Configure a Provider-Assigned IP Address
Discovery Lab 13: Configure Static NAT
Discovery Lab 14: Configure Dynamic NAT and PAT
Discovery Lab 15: Troubleshoot NAT
Discovery Lab 16: Configure VLAN and Trunk
Discovery Lab 17: Configure a Router on a Stick
Discovery Lab 18: Configure a Cisco Router as a DHCP Server
Discovery Lab 19: Troubleshoot DHCP Issues
Discovery Lab 20: Configure and Verify RIPv2
Discovery Lab 21: Troubleshoot RIPv2
Discovery Lab 22: Enhance Security of Initial Configuration
Discovery Lab 23: Limit Remote Access Connectivity
Discovery Lab 24: Configure and Verify Port Security
Discovery Lab 25: Configure and Verify NTP
Discovery Lab 26: Configure Syslog
Discovery Lab 27: Configure Basic IPv6 Connectivity
Discovery Lab 28: Configure IPv6 Static Routes

Challenge Lab 1: Implementing the Initial Switch Configuration
Challenge Lab 2: Implementing the Initial Router Configuration
Challenge Lab 3: Implementing Static Routing
Challenge Lab 5: Implementing PAT
Challenge Lab 6: Summary Challenge Lab: 1
Challenge Lab 7: Summary Challenge Lab: 2
Challenge Lab 8: Troubleshooting VLANs and Trunk
Challenge Lab 9: Implement Multiple VLANs and Basic Routing Between the VLANs
Challenge Lab 10: Implementing a DHCP Server in on a Cisco IOS Device
Challenge Lab 11: Implementing RIPv2
Challenge Lab 12: Securing Device Administrative Access
Challenge Lab 13: Implementing Device Hardening
Challenge Lab 14: Configuring System Message Logging
Challenge Lab 15: Summary Challenge Lab: 3
Challenge Lab 16: Summary Challenge Lab: 4
Challenge Lab 17: Implement IPv6 Static Routing

Jul 15 - 19, 2019 | 9:30 AM - 5:30 PM EST
Jul 22 - 26, 2019 | 8:30 AM - 4:30 PM EST
Jul 29 - Aug 2, 2019 | 8:30 AM - 4:30 PM EST
Aug 5 - 9, 2019 | 8:30 AM - 4:30 PM EST
Aug 5 - 9, 2019 | 11:30 AM - 7:30 PM EST
Aug 12 - 16, 2019 | 9:30 AM - 5:30 PM EST
Aug 19 - 23, 2019 | 8:30 AM - 4:30 PM EST
Aug 26 - 30, 2019 | 8:30 AM - 4:30 PM EST
Aug 26 - 30, 2019 | 11:30 AM - 7:30 PM EST
Sep 9 - 13, 2019 | 8:30 AM - 4:30 PM EST
Sep 16 - 20, 2019 | 9:30 AM - 5:30 PM EST
Sep 23 - 27, 2019 | 8:30 AM - 4:30 PM EST
Sep 23 - 27, 2019 | 11:30 AM - 7:30 PM EST
Sep 30 - Oct 4, 2019 | 8:30 AM - 4:30 PM EST
Oct 7 - 11, 2019 | 9:30 AM - 5:30 PM EST
Oct 21 - 25, 2019 | 8:30 AM - 4:30 PM EST
Oct 28 - Nov 1, 2019 | 8:30 AM - 4:30 PM EST
<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nov 4 - 8, 2019</td>
<td>9:30 AM - 5:30 PM EST</td>
</tr>
<tr>
<td>Nov 18 - 22, 2019</td>
<td>8:30 AM - 4:30 PM EST</td>
</tr>
<tr>
<td>Dec 2 - 6, 2019</td>
<td>8:30 AM - 4:30 PM EST</td>
</tr>
<tr>
<td>Dec 9 - 13, 2019</td>
<td>9:30 AM - 5:30 PM EST</td>
</tr>
<tr>
<td>Dec 16 - 20, 2019</td>
<td>8:30 AM - 4:30 PM EST</td>
</tr>
</tbody>
</table>
ICND1 V3.0 - INTERCONNECTING CISCO NETWORKING DEVICES, PART 1

Course Code: 4548

ON-DEMAND $750 USD

On-Demand Outline

1. Building a Simple Network
   • Functions of Networking
   • Host-to-Host Communications Model
   • Introducing LANs
   • Operating Cisco IOS Software
   • Starting a Switch
   • Ethernet and Switch Operation
   • Troubleshooting Common Switch Media Issues

2. Establishing Internet Connectivity
   • TCP/IP Internet Layer
   • IP Addressing and Subnets
   • TCP/IP Transport Layer
   • Functions of Routing
   • Configuring a Cisco Router
   • Packet Delivery Process
   • Enabling Static Routing
   • Basics of ACL
   • Enabling Internet Connectivity

3. Summary Challenge
   • Establish Internet Connectivity
   • Troubleshoot Internet Connectivity

4. Building a Medium-Sized Network
   • Implementing VLANs and Trunks
   • Routing Between VLANs
   • Using a Cisco IOS Network Device as a DHCP Server
   • Implementing RIPv2
5. Network Device Management and Security
   • Securing Administrative Access
   • Implementing Device Hardening
   • Configuring System Message Logging
   • Managing Cisco Devices
   • Licensing

6. Summary Challenge
   • Implementing a Medium-Sized Network
   • Troubleshooting a Medium-Sized Network

7. Introducing IPv6
   • Introducing Basic IPv6
   • IPv6 Operation
   • Configuring IPv6 Static Routes

On-Demand Labs
Discovery Lab 1: Get Started with Cisco CLI
Discovery Lab 2: Perform Basic Switch Configuration
Discovery Lab 3: Observe How a Switch Operates
Discovery Lab 4: Troubleshoot Switch Media and Port Issues
Discovery Lab 5: Inspect TCP/IP Applications
Discovery Lab 6: Start with Cisco Router Configuration
Discovery Lab 7: Configure Cisco Discovery Protocol
Discovery Lab 8: Configure Default Gateway
Discovery Lab 9: Exploration of Packet Forwarding
Discovery Lab 10: Configure and Verify Static Routes
Discovery Lab 11: Configure and Verify ACLs
Discovery Lab 12: Configure a Provider-Assigned IP Address
Discovery Lab 13: Configure Static NAT
Discovery Lab 14: Configure Dynamic NAT and PAT
Discovery Lab 15: Troubleshoot NAT
Discovery Lab 16: Configure VLAN and Trunk
Discovery Lab 17: Configure a Router on a Stick
Discovery Lab 18: Configure a Cisco Router as a DHCP Server
Discovery Lab 19: Troubleshoot DHCP Issues
Discovery Lab 20: Configure and Verify RIPv2
Discovery Lab 21: Troubleshoot RIPv2
Discovery Lab 22: Enhance Security of Initial Configuration
Discovery Lab 23: Limit Remote Access Connectivity
Discovery Lab 24: Configure and Verify Port Security
Discovery Lab 25: Configure and Verify NTP
Discovery Lab 26: Configure Syslog
Discovery Lab 27: Configure Basic IPv6 Connectivity
Discovery Lab 28: Configure IPv6 Static Routes

Challenge Lab 1: Implementing the Initial Switch Configuration
Challenge Lab 2: Implementing the Initial Router Configuration
Challenge Lab 3: Implementing Static Routing
Challenge Lab 5: Implementing PAT
Challenge Lab 6: Summary Challenge Lab: 1
Challenge Lab 7: Summary Challenge Lab: 2
Challenge Lab 8: Troubleshooting VLANs and Trunk
Challenge Lab 9: Implement Multiple VLANs and Basic Routing Between the VLANs
Challenge Lab 10: Implementing a DHCP Server in on a Cisco IOS Device
Challenge Lab 11: Implementing RIPv2
Challenge Lab 12: Securing Device Administrative Access
Challenge Lab 13: Implementing Device Hardening
Challenge Lab 14: Configuring System Message Logging
Challenge Lab 15: Summary Challenge Lab: 3
Challenge Lab 16: Summary Challenge Lab: 4
Challenge Lab 17: Implement IPv6 Static Routing
ICND1 V3.0 - INTERCONNECTING CISCO NETWORKING DEVICES, PART 1

Course Code: 4548

BLENDED LIVE  $3,235 USD

Blended Live Outline

[This delivery format includes both instructor-led sessions and on-demand sessions]

Week 1 – Kick-off and introduction to Network Fundamentals

Class session:
- Introduction to course, review course schedule, expectations, etc.
- Introduction to Network Fundamentals module

On-Demand modules to complete by next week’s class:
- Exploring the Functions of Networking
- Understanding the Host-to-Host Communications Model
- Introducing LANs
- Understanding the TCP/IP Internet Layer
- Understanding IP Addressing and Subnets
- Understanding the TCP/IP Transport Layer
- Introducing Basic IPv6
- Understanding IPv6 Operation

Reminder: To maximize your time and participation in next week’s lab exercises, please complete the above modules prior to class.

Week 2 – Complete Network Fundamentals module and introduction to LAN Switching Fundamentals

Class session:
- Challenge lab: Network fundamentals practice exam
- Introduction to LAN Switching Fundamentals module
On-Demand modules to complete by next week’s class:

- Starting a Switch
- Understanding Ethernet and Switch Operation
- Troubleshooting Common Switch Media Issues
- Implementing VLANs and Trunks
- Implement a Medium-Sized Network
- Troubleshoot a Medium-Sized Network

Reminder: To maximize your time and participation in next week’s lab exercises, please complete the above modules prior to class.

Week 3 – Complete LAN Switching Fundamentals module and introduction to Routing Fundamentals

Class session:

- Challenge lab: LAN Switching Fundamentals
- Introduction to Routing Fundamentals modules

On-Demand modules to complete by next week’s class:

- Exploring the Functions of Routing
- Configuring a Cisco Router
- Exploring the Packet Delivery Process
- Enabling Static Routing
- Enabling Internet Connectivity
- Establish Internet Connectivity
- Troubleshoot Internet Connectivity
- Routing Between VLANs
- Implementing RIPv2
- Configuring IPv6 Static Routes

Reminder: To maximize your time and participation in next week’s lab exercises, please complete the above modules prior to class.

Week 4 – Complete Routing Fundamentals module and introduction to Infrastructure Services

Class session:

- Challenge lab: Routing Fundamentals practice exam
- Introduction to Infrastructure Services modules

On-Demand modules to complete by next week’s class:

- Learning the Basics of ACL
- Using a Cisco IOS Network Device as a DHCP Server

Reminder: To maximize your time and participation in next week’s lab exercises, please complete the above modules prior to class.
Week 5 – Complete Infrastructure Services module and introduction to Infrastructure Maintenance

Class session:
• Challenge lab: Infrastructure Services practice exam
• Introduction to Infrastructure Maintenance modules

On-Demand modules to complete by next week’s class:
• Operating Cisco IOS Software
• Securing Administrative Access
• Implementing Device Hardening
• Configuring System Message Logging
• Managing Cisco Devices
• Licensing

Reminder: To maximize your time and participation in next week’s lab exercises, please complete the above modules prior to class.

Week 6 – Complete Infrastructure Maintenance and final course review

Class session:
• Challenge lab: Infrastructure Maintenance practice exam
• Course review and wrap-up

Aug 22 - Sep 26, 2019 | 8:00 - 10:00 AM EST
Aug 22 - Sep 26, 2019 | 8:00 AM - 12:00 PM EST
Aug 22 - Sep 26, 2019 | 4:00 - 6:00 PM EST
Aug 22 - Sep 26, 2019 | 4:00 - 8:00 PM EST
Oct 3 - Nov 7, 2019 | 8:00 AM - 12:00 PM EST
ICND1 V3.0 - INTERCONNECTING CISCO NETWORKING DEVICES, PART 1

Course Code: 4548

PRIVATE GROUP TRAINING 5 days

Visit us at www.globalknowledge.com or call us at 1-866-716-6688.

Date created: 7/11/2019 2:40:08 PM
Copyright © 2019 Global Knowledge Training LLC. All Rights Reserved.