

# Commander Phone & Key Phone

## Site Readiness Companion Guide

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## Introduction

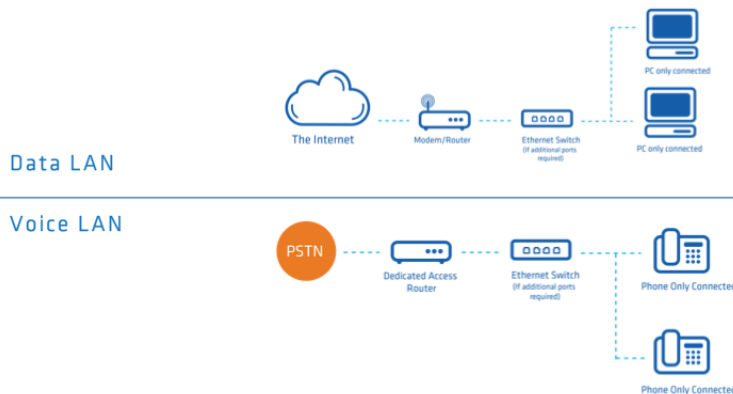
This guide is designed to help you, the customer, check that your technical environment is set up and ready for the *Commander Phone* or *Commander Key Phone* IP Telephony service.

This guide is used to check that your new *Commander Phone* or *Commander Key Phone* service will successfully operate over a data connection that is also used as your Internet connection.

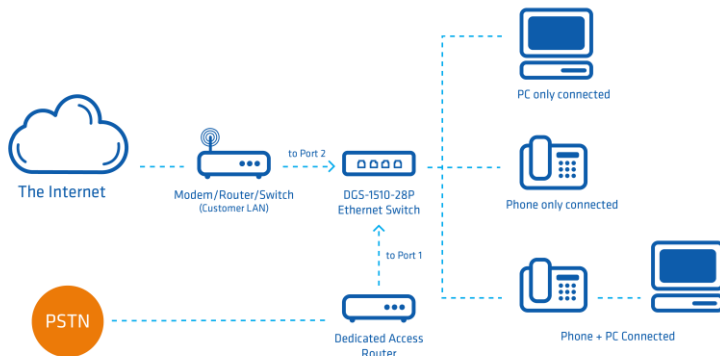
If a Commander supplied dedicated data connection will be used (known as Dedicated Access), then the service will already be configured to support *Commander Phone* or *Commander Key Phone*. In this case, Steps 2 below is not required.

Please note that a Commander Dedicated Access service does not deliver normal Internet services and therefore the *Commander Phones* or *Key Phones* and your data devices, like computers will need to operate on a separate LAN connection, that has Internet access using the methods in the diagrams below.

### Physically Separate LAN:



### Voice VLAN-Enabled Switch:



To make sure you can successfully make and receive phone calls and manage the *Commander Phone* service using your local network and Internet connection, we need you to check a few things such as:-

- ✓ Power requirements for each phone
- ✓ LAN cabling and patching requirements
- ✓ LAN Switch port capacity
- ✓ Internet Router configuration
- ✓ Speed and quality tests

In preparation for the installation of the Commander Phones, this guide is used in conjunction with the **Self Readiness Checklist** (found at <http://commander.com/resource-centre>) so that you can be confident that our service will run on the your network.

If you are unsure about any areas of the checklist, please call the Commander Phone Deployment team on 1300 638 208.

## Step One: Your Environment

### Step 1.1 Floor Plan and installation locations

In preparation for the installation, the following information is used to determine the location of each Commander Phone or Key Phone and that each location has adequate power and cabling for the phone.

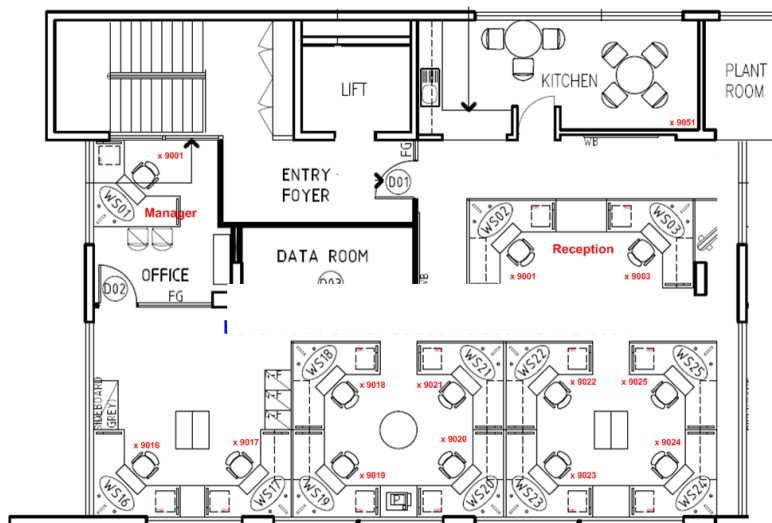
Identify on the floor plan (or equivalent) the locations of each phone identifying:

1. The phone type and;
2. The person that will be using Commander Phone or Key Phone at each of these locations.

That is:

- Commander Essentials Cordless – W52P
- Commander Essentials Desk – T41P (N/A for Key Phone)
- Commander Office – T46G
- Commander Executive – T48G
- Commander EXP40 Reception Sidecar

An example floor plan is below.



Example floor plan with handset locations

## FLOOR PLAN with HANDSET LOCATIONS



Floor plan with handset locations



## Step 1.2 Power Requirements at phone locations

Each Commander phone can be powered the one of two ways.

- a) Using the power pack supplied in the box with the Commander Phone or Key Phone



OR

- b) Powering the Commander Phone using a LAN switch. The power is supplied over the Ethernet cable from the LAN Switch (this is called Power Over Ethernet or PoE)



Run through these quick questions for every Commander Phone location.

A mixture of power packs and PoE across the phone locations is totally acceptable.

### Checklist question #1.2: Power pack or PoE

IS THERE A SPARE POWER POINT AVAILABLE WHERE EACH OF THE COMMANDER PHONES NEEDS TO BE INSTALLED?

**YES**  Skip question 1.3

**NO**  Go to Question 1.3 - Power needs to come from the LAN switch

### Checklist question #1.2: LAN Switch

WILL YOU BE USING A NEW LAN SWITCH TO CONNECT TO THE COMMANDER PHONES OR KEY PHONES?

**YES**  Go to Step 1.3

**NO**  Go to Question 1.3 – You will be using your existing LAN switch

### Checklist question #1.3: Switch PoE

DOES YOUR EXISTING LAN SWITCH SUPPORT PoE?

**YES**  Go to Step 1.3

**NO**  You will need to be able to supply power to your new phones. As your existing LAN switch does not support PoE, then try sourcing a nearby power point or talk to Commander on 1300 638 208 to arrange a PoE capable switch to be supplied along with your phones.

## Step 1.3 Patch Configuration

The Commander Phone and Key Phone services use Ethernet ports on your



local network's LAN switch and internal CAT 5 (or better) building cabling.

When the Commander phone is co-located with a LAN-connected computer, then the same patch cabling and LAN switch port may be used. If you have a Dedicated Access product, please ensure you use the right switch and if you have any questions, please contact the Commander Phone team.

This is a 'daisy chain' of the computer 'through' the Commander Phone or Key Phone.

Existing configuration.....



To this.....



For Commander Phones or Key Phones that will not be co-located with a LAN connected computer then a dedicated LAN switch port and patch cabling will be required to run out to each of the Commander Phone or Key Phone locations.



### Checklist question #1.4: Cabling and Patching

PLEASE CONFIRM THAT YOU HAVE THE REQUIRED PATCHING FROM THE LAN SWITCH TO THE LOCATIONS OF EACH OF THE COMMANDER PHONES OR KEY PHONES?

- YES**  *Go to Question 1.5.*
- NO**  *Please arrange adequate CAT 5 (or better) cabling and patching to each of the locations of the Commander Phones.*

### Checklist question #1.5: LAN Switch Port Capacity

BASED ON THE PATCHING, ARE THERE ENOUGH PORTS ON THE LAN SWITCH TO CONNECT TO THE COMMANDER PHONES OR KEY PHONES AND ALL OTHER EXISTING DEVICES AS WELL?

- YES**  *Go to Step 2 below.*
- NO**  *Please arrange for additional LAN Switching ports to be installed prior to the phone installation date. The Commander Phone Deployment team can organise the delivery of additional certified PoE LAN switches. 8, 24 port switches are available. Contact the team on 1300 638 208.*

**Please note:**

- Hubs are not supported.
- If the switch loses power, then the phone may lose power (PoE connected) and the Commander Phone or Key Phone will not be able to make or receive calls.
- Cabling must be of type CAT 5 or better
- Each IP phone comes shipped with a 1.5 metre CAT 5 patch lead.
- If you are using your own LAN switch and will use it to power the phones (PoE), please ensure that it is able to power the total number of Commander Phones or Key Phones that will be connected.

## Step Two: LAN and Internet Configuration

Your new Commander Phone or Key Phone uses your local network (LAN), and Internet service to connect to our servers to make and receive phone calls.

There are a number of items, related to your LAN and Internet that need to be checked to ensure the connection is established and the service operates as expected.

### Step 2.1 DNS - Domain Name Server

Your network should already be using the services of a DNS, delivered as a part of the Internet service.

To be able to connect to Commander's Servers, you need to ensure that your network can resolve our "commander.com" domain.

Using a computer, connected to your LAN, ensure you can resolve our domain from a web browser (eg. Browse to [www.commander.com](http://www.commander.com)).

#### Checklist question #2.1: DNS enablement

CAN YOU REACH THE 'COMMANDER.COM' DOMAIN FROM THE YOUR LOCAL NETWORK?

- YES**  Go to Step 2.2.
- NO**  Please configure the Internet Router or equivalent to support DNS

### Step 2.2 DHCP Configuration

The Commander Phones and Key Phones use a DHCP service to obtain an IP address. Please ensure that your local network uses DHCP, allowing devices to dynamically obtain their IP Address, Gateway and DNS settings.

#### Checklist question #2.2: DHCP enablement

IS DHCP ENABLED IN THE YOUR ENVIRONMENT?

- YES**  Go to Step 2.3.
- NO**  Please configure a DHCP service for your local LAN environment. Please be aware that this will impact the allocation of IP addresses across all other devices connected to the router.

### Step 2.3: Firewall Configuration

The Commander Phone and Key Phone services communicate over your

local network and Internet connection.

The Commander Phones, Key Phones and associated services use a number of protocols that traverse your Internet router and firewall configuration.

SIP-ALG (Application-Level Gateway) is a typical configuration capability of most Internet routers and is usually a default option. In the event that your Internet router does not support the SIP-ALG option, please refer to the below table of the protocols and port numbers that are used by Commander Phone and Commander Key Phone.

Service	Protocol	Port	Description
<b>SIP</b>	TCP/UDP	5060	Signalling protocol used by the Commander Phones and Key Phones
<b>RTP</b>	UDP	Dynamic (16384-32767)	Media (Real-time Transport Protocol) used to deliver audio between phones
<b>DNS</b>	TCP/ UDP	53	Used for name resolution via DNS servers
<b>HTTP(S)</b>	TCP	80, 443	Web use HTTP and SSL for administration

### Checklist question #2.3: Firewall configuration

IS SIP-ALG ENABLED ON YOUR INTERNET ROUTER OR DOES THE INTERNET ROUTER PASS THE ABOVE PROTOCOLS?

- YES**  Go to Step 3.
- NO**  Please configure your Internet Router to support SIP-ALG or the protocols and ports above.

## Step Three: Commander Smart Check

There are a number of factors influencing the quality of the phone calls (QoS) and the number of calls (capacity) that can be concurrently made over your local network and Internet connection.

They include:

- The speed of the Internet data service
- The distance from the Internet service provider's exchange
- The volume of other data traffic that simultaneously uses the Internet Service

The following two Internet tests need to be performed from each of your sites to confirm that your local network and Internet service will support Commander Phone or Commander Key Phone services.

1. **SMART CHECK**  
A 'moment in time test' of your local network and Internet service
2. **SMART CHECK PLUS**  
Testing the Internet 'over a period of time'

## Commander Smart Check

This is a test run from within the your LAN and connects over the Internet to Commander Phone.

**Step 1.** Browse to the **SMART CHECK** site <http://smartcheck.commander.com> to run the ‘speed and quality’ test for a ‘once off’ check

**Step 2.** Enter the number of concurrent calls that you have requested (in your initial order) that the site needs to support.

Usually 1 concurrent call is required for every 3 users at the site.

The test will perform the following tests.

- Distance check
- Call Capacity/Bandwidth check
- Call Quality check

The results of the test can be emailed to you as a record of the test. They are also stored by Commander as a part of your order. This information will be used by our support team to assist the in the unlikely event that there are any future problems with the service.

The screenshot shows the 'Commander Phone Smart Check' interface. It has two tabs: 'Step 1 - Site Details' and 'Step 2 - Assess'. The 'Step 2 - Assess' tab is active. Below the tabs, it displays 'Readiness SQ ID : 195'. There are three test results listed:

- Distance:** Represented by a green circle. Text: 'Your site is less than 2 km from your local exchange.'
- Bandwidth:** Represented by a yellow circle. Text: 'Your site has enough bandwidth to support 6+ lines'
- Quality:** Represented by a red circle. Text: 'Your sites connection quality is not suitable.'

Below the results, there is a text prompt: 'If you would like to see detailed data from our testing, please provide your email address and click on "Email Results"'. There is an 'Email Address' input field, an 'Email Results' button, and a 'Start Over' button.

If any of the tests do not pass the minimum requirements, please contact the Commander Phone team on 1300 638 208 to discuss the results.

**Step 3.** Please enter the your email address if you would like a copy of the report sent to you.

**Step 4. PLEASE RECORD THE SMART CHECK ID** that the test returns in the space provided in the summary above. (Step 3).

## Commander Smart Check Plus

This test checks your Internet service over a period of time. Please identify a computer on your local network where this application can be installed and run for a period of time not less than seven (7) days so that testing data can be gathered. This test is looking for any potential performance issues on the Internet connection that span your normal business cycle, like a week of activity.

You can, after this period, remove the application from the computer. The application uses Java to operate and the application may request that you update your version of Java.

**Step 1.** From the identified computer at each of the sites, browse to the Smart Check Plus site. <http://smartcheckplus.commander.com>

**Step 2.** Download the Smart Check Plus application

**Step 3.** Enter the number of concurrent calls the site needs to support and the duration for the test

This application will be installed on the computer and perform a number of tests over time including.

- Distance check
- Call Quality check
- Call Capacity check

**Step 4.** If the Smart Check Plus test highlights any potential issues over the subsequent seven (7) days, our Commander Provisioning team will be notified and will contact with you to discuss your Internet connection options.

The results of the test will also be stored by Commander as a part of the order and later used by our support team to assist in the unlikely event that there are any problems with the service.

### Checklist question #3.1: Speed and Quality Tests

DID THE 'COMMANDER SMART CHECK' SUCCESSFULLY RUN THE SPEED AND QUALITY TESTS AT EACH SITE?

- YES**  Go to Step 4.
- NO**  Please ensure that you run these tests prior to any installation of the Commander Phone.

## Step Four: Existing Services

A number of legacy voice service like fax lines need to be considered in the integration with the Commander Phone service.

Please confirm that all of the following types of services have been discussed with Commander and a plan is in place to manage these services moving forward.

Your services may include:-

- Fax machines that use analogue PSTN services
- Security systems that have 'back to base' that use analogue PSTN services
- EFTPoS terminals that use analogue PSTN services
- MODEMS that use analogue PSTN services
- Any lift phones / public phones / ATMs that use analogue PSTN services
- Any other cordless phones in use that are not being replace by the Commander Cordless (W52P)
- Door stations that are used by the existing phone system to remotely unlock doors
- External loud Ringers or PA systems
- Conference phones that use analogue PSTN services
- Conference phones that need replacing for IP Conference phones
- ISDN BRI or PRI services

### Checklist question #4.1: Existing Services

HAVE ALL OTHER VOICE SERVICES HAVE BEEN IDENTIFIED AND A MANAGEMENT PLAN WILL BE IN PLACE?

- YES**  Go to Step 5.
- NO**  Please escalate to your Sales Representative for further assistance or call the Commander Phone team on 1300 638 208. Please discuss what options are available to manage legacy voice services when using the Commander Phone or Key Phone services.



## Step Five: Power Failure Management and Emergency Services

In the event of a power outage, without UPS (Uninterruptable Power Supply), your local network and Internet service will not be operational.

As the Commander Phones and Commander Key Phones use power and the Internet service, they will not operate until power is restored.

Consider the installation of a UPS for your LAN and WAN devices if you would like to maintain temporary power during these outages.

Commander Phone and Commander Key Phone also support features that can help you during an outage on your site, like the use of diversion to mobile phones as an example. Simultaneous Ring and Call Forward Unreachable are common features used in these cases.

Please note, as Commander Phone and Commander Key Phone are Internet-based telephony services, Emergency Services (E000) will not be aware if you move a handset to a different location from your initial order. Please notify Commander if you intend to change the physical address of any of the Commander Phones or Key Phones so that this information can be updated.

## Step Six: Commander Client Applications

The Commander SMART UC Softphone and/or Mobility clients have minimum supported hardware and operating system requirements. Please check the minimum hardware and software versions required to operate the client applications. These requirements are specified in the associated installation guides at <http://commander.com/resource-centre>.

## Step Seven: Self Ready Check – Submission

It is a pre-cursor to the installation date being set that the Self Ready Check is returned to the Commander Phone Deployment team.

[\(commanderphone@commander.com\)](mailto:commanderphone@commander.com)

Please ensure you complete this checklist at your earliest convenience.