

*Migration plan to*



**IRV6**



*Bureau Telecommunicatie en Post*

# Introduction to IPv6

## WHAT IS IPv6?

The number of connected devices on the internet is growing rapidly. And each one needs its own IP address. Think of all the laptops, smartphones and tablets we connect to the internet nowadays.

The existing addressing system is based on IPv4 which provides 'only' 4.3 billion addresses. They are nearly depleted. If we want to connect more devices we need to use IPv6, the next IP addressing standard. IPv6 has more characters than IPv4. That way there are more unique possibilities.

## Examples of IPv4 and IPv6

IPv4 address:  
192.168.10.1

IPv6 address:  
2001:0:9d38:953c:188c:25ad:3f57:fe8a



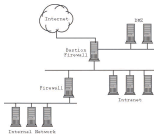


## How urgent is this upgrade?

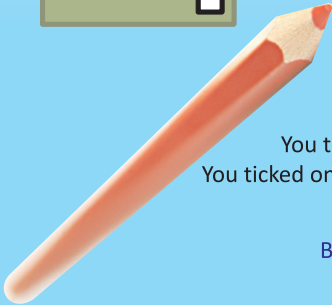
For our region, we have some time before the IPv4 addresses run out. Today's projections say between January 2014 and May 2015 the IPv4 addresses are depleted in our region. So we are, for the time being, able to connect more devices with IPv4.

However, in Europe and Asia the IPv4 number blocks are already depleted. In the US, the depletion is projected in August 2013. That means that new users in these regions get an IPv6 address only. As the pool of IPv6 users gets larger, also more IPv6-only webservices will be available. If we don't migrate in the same pace as the rest of the world these parts of the internet may become unreachable.

The migration to IPv6 could take several months or even more than a year. Because this migration is inevitable, now is the time to migrate as we can do it properly, with fewer risks and costs involved.

# Is your organization IPv6 ready?

 <p>Website and other online-services</p>	 <p>Connectivity</p>	 <p>Networking equipment and other hardware (e.g. Routers, Servers, Back-up, Firewall, LAN etc.)</p>	 <p>Clients and software (e.g. Workstations, OS, Laptops, Smartphones, VOIP etc.)</p>	 <p>IT Staff</p>
<p><i>Question:</i> Is the webserver of your website IPv6 ready and properly configured? And your other online-services?</p>	<p><i>Question:</i> Do you get an IPv6 IP address from your ISP?</p>	<p><i>Question:</i> Is your networking equipment and Back-end IPv6 ready and properly configured?</p>	<p><i>Question:</i> Are your clients connected to your LAN IPv6-ready and properly configured?</p>	<p><i>Question:</i> Is your IT staff ready &amp; prepared?</p>
<p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>I don't know <input type="checkbox"/></p>	<p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>I don't know <input type="checkbox"/></p>	<p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>I don't know <input type="checkbox"/></p>	<p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>I don't know <input type="checkbox"/></p>	<p>Yes <input type="checkbox"/></p> <p>No <input type="checkbox"/></p> <p>I don't know <input type="checkbox"/></p>



You ticked five times "Yes"? Then your business is probably IPv6-ready. Are you up for a test?  
You ticked one or more answers "No" or "I don't know"? Then action is needed to get you to IPv6-readiness.

Bureau Telecommunicatie & Post will help you on your way with your IPv6 migration.

Website IPv6: [www.btnp.org](http://www.btnp.org)

Email: [IPv6Migration@burtel.an](mailto:IPv6Migration@burtel.an)

# 4 steps to become IPv6 ready

<p>measure</p> <p>1.</p>	<p>plan</p> <p>2.</p>	<p>act</p> <p>3.</p>		<p>manage</p> <p>4.</p>
<ul style="list-style-type: none"> <li>✓Assign an official lead (Transition Manager)</li> <li>✓Test your website and other online services</li> <li>✓Test your connectivity</li> <li>✓Complete inventory check of existing routers, switches and hardware firewalls</li> <li>✓Begin with inventory check of all other IP compliant equipment</li> <li>✓Identify procurement processes which should be changed</li> <li>✓Take stock of training needs</li> <li>✓Begin impact analysis of deployment costs, operational impact and risks</li> </ul>	<ul style="list-style-type: none"> <li>✓Complete inventory check</li> <li>✓Complete impact analysis</li> <li>✓Investigate proposed measures to deploy IPv6, retaining the level of security and accessibility</li> <li>✓Provide the completed IPv6 deployment and migration plan</li> </ul>	<ul style="list-style-type: none"> <li>✓Implement the migration plan</li> <li>✓Activate IPv6 connections:                             <ul style="list-style-type: none"> <li>✓Distribute assigned addresses</li> <li>✓Configure the firewall for IPv6</li> <li>✓Configure and commission routers, switches and other network equipment</li> </ul> </li> <li>✓Activate IPv6 for server platforms</li> <li>✓Enable access to external IPv6 services for client computers on the internal network</li> <li>✓Adapt framework contracts and procurement documentation with requirements for IPv6</li> </ul>	<ul style="list-style-type: none"> <li>✓Test thoroughly, also security</li> <li>✓Check and monitor the IPv6 traffic</li> <li>✓Also check your procurement process</li> </ul>	<ul style="list-style-type: none"> <li>✓Monitor, follow up and adapt to maintain security and accessibility</li> <li>✓Deal with interruptions</li> <li>✓Sign of at BTP for IPv6 readiness</li> </ul>
<p>Deadline November 2012</p>	<p>Deadline March 2013</p>	<p>Deadline Government:</p> <ul style="list-style-type: none"> <li>✓ Backbone: June 2013</li> <li>✓ Websites and other internet facing services: October 2013 (50%) January 2014 (100%)</li> </ul>	<p>Deadline Operators:</p> <ul style="list-style-type: none"> <li>✓ Offer IPv6 connectivity: June 2013</li> <li>✓ Websites and other internet facing services: October 2013</li> </ul>	<p>Deadline: ongoing</p>

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