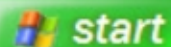


# IPv6 and Microsoft® Windows® XP

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Windows Networking and  
Communications



# Agenda

- ◆ Overview
- ◆ IPv6 Scenarios for Windows XP®
- ◆ Support in Microsoft Products
- ◆ Call to Action

# IPv6 Scenarios

## *Transition from the Edge*

- ◆ Home IPv6-enabled network in the following configurations
  - ❖ IPv4 ISP assigned global IPv4 address
  - ❖ IPv4 ISP assigned private IPv4 address
  - ❖ IPv6 ISP assigned globally unique /64 prefix
- ◆ Mobile IPv6
  - ❖ Home → Public Network → Enterprise
- ◆ Enterprise (islands of IPv6)
  - ❖ Mixed IPv4/IPv6 enterprise

# IPv6 deployment tool-box

- ◆ **IPv6 stateless address autoconfiguration**
  - ❖ For peer-to-peer communication
- ◆ **6to4: Automatic tunneling of IPv6 over IPv4**
  - ❖ For connecting IPv6-enabled networks to each other
  - ❖ Available in Windows XP®
- ◆ **Teredo: Automatic tunneling of IPv6 over UDP/IPv4**
  - ❖ For establishing IPv6 connections through NATs without v6 support
- ◆ **ISATAP: Automatic tunneling of IPv6 over IPv4**
  - ❖ For use between subnets in the enterprise
  - ❖ Available in XP, .NET server
- ◆ **MIPv6??**
  - ❖ For v6 devices, roaming, 2.5/3G (??)



# Enabling IPv6 scenarios

## *In the Home*

- ◆ Use IPv6 if available
- ◆ Or use 6to4 if global IPv4 address
- ◆ Or use Teredo

# Enabling IPv6 scenarios *In the Enterprise*

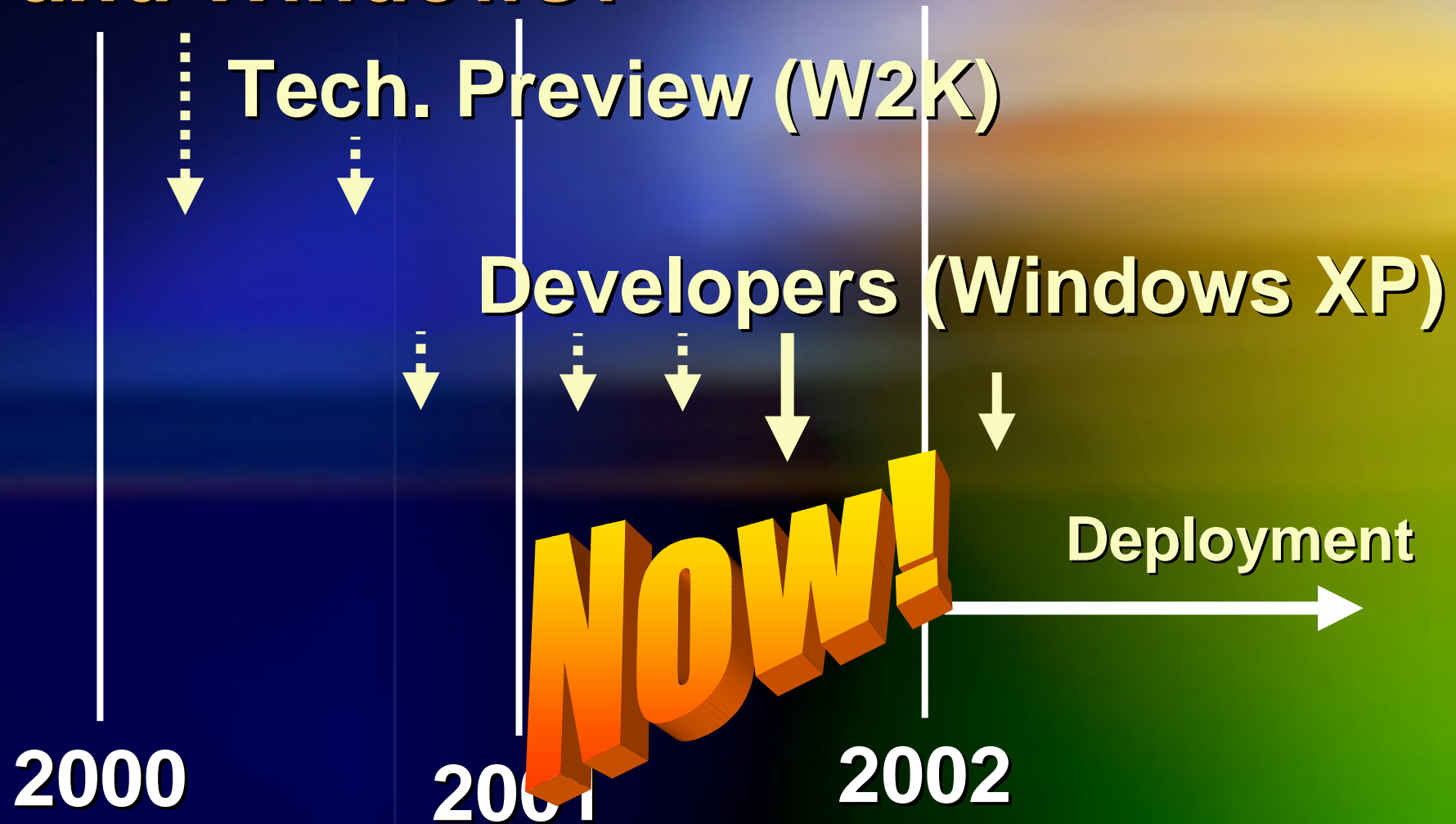
- ◆ Use IPv6 ISP or 6to4 for external access
- ◆ Use ISATAP while upgrading the network

# Enabling IPv6 scenarios

## *Mobility*

- ◆ **Scenarios**
  - ❖ Seamless, secure roaming
  - ❖ Home→WAN→CorpNet
- ◆ **Work in the IETF is too slow**
- ◆ **No plans for MIPv4 implementation in Windows**

# What can we do today with IPv6 and Windows?





# Windows XP Install Demo

## ◆ C:\> IPv6 install



# IPv6 Support in Microsoft Windows<sup>®</sup> XP<sup>®</sup>

- ◆ IE
- ◆ Telnet client
- ◆ FTP Client
- ◆ File and Print Sharing (SMB)
- ◆ WebDAV client
- ◆ IP based printing (LPR)

# Calls to Action

## ◆ ISPs

- ❖ Demand 6to4, Teredo support in HW
- ❖ Deploy native v6 service
- ❖ Deploy Teredo to solve the NAT

## ◆ ISVs

- ❖ Begin porting to v6 now!
- ❖ Write native v6 applications now!

## ◆ IHVs

- ❖ Deploy 6to4 on the home edge


## ◆ Everyone

- ❖ Install IPv6 support in XP and begin using
- ❖ Send feedback to [IPv6-fb@microsoft.com](mailto:IPv6-fb@microsoft.com)



Microsoft®  
**Windows®** xp

**yes you can.**

 start