

VBVoice 11.0 Service Pack 3

Release Notes (v11.0.3)

June 8, 2023

This service pack cumulates all the fixes and improvements since the previous release. It also upgrades support for the latest Dialogic HMP drivers and Microsoft Windows operating systems.

What's new?

Configurable Runtime Manager sockets timeout

In some cases, the Runtime Manager is reaching the maximum number of sockets and cannot answer license requests.

To alleviate this, a new setting has been added to allow changing the sockets' timeouts.

In VBVRTM.ini, use:

```
[Config]
```

```
SocketTimeout=
```

with a default of 5 ms and values ranging from 3 to 500 ms.

Configurable Default TTS language

A new ini setting has been added to set the default language to be used by the TTS engine.

In VBVoice.ini, use:

```
[TTS]
```

```
DefaultLanguage=
```

with values in the format ISO Language Code-ISO Country Code; default is en-US; Country Code is optional.

Resolved Issues

- Outbound SIP when using TCP signaling is missing transport type in the INVITE (transport=tcp) for both call control types.
- SIP Hold/Retrieve from hold does not work as expected; before it had to be enabled by an ini setting, now it's enabled by default.
- SIP with Pronexus Call Control: Errors when using G.729 codec.
- SIP with Pronexus Call Control: Memory violation on REFER authenticate when return code 401 is received and a registration a port is not set (using default)
- On SIP reinvites to switch codecs, sometimes codec switch fails.
- VBVMRCPCClient version 2 – random failures to stop recognition, leading to lost MRCP functionality.
- TTS Speaker and Language selection errors, language not set correctly.
- SIP with Pronexus Call Control: When receiving 2 reinvites in a short time window, the second one is not processed.

General Versioning Information:

VBVoice 11.0.3 has been tested and released using the following:

OS:

Windows Server 2012 Standard

Windows Server 2012 R2 Standard

Not that Windows Server 2012 and Windows Server 2012R2 will reach end of support on Oct 10, 2023 and it's recommended to plan upgrading to newer OS-es.

Windows Server 2016 Standard

Windows Server 2019 Standard

Windows Server 2022 Standard

Windows 10 Enterprise and Professional

IDE:

Visual Studio Professional and Community Edition 2015

Visual Studio Professional, Enterprise and Community Edition 2017

Visual Studio Professional, Enterprise and Community Edition 2019 (preferred)

Note: Visual Studio 2022 is not supported and does not work with the current version of VBVoice.

Dialogic HMP drivers:

Windows Server 2012, Windows Server 2016, Windows Server 2019, Windows Server 2022 and Windows 10 Pro operating systems:

- HMP 3.0 Service Update 548

Sangoma JCT drivers:

Windows Server 2012 Standard and 2012 R2 Standard, Windows Server 2016, Windows Server 2019 Standard, Windows 10 Operating Systems

- System Release 6.0 Service Update 280 for Windows

Note: This is the latest Service Update from Sangoma and it does not support Windows Server 2022, therefore this operating system is currently not supported by VBVoice. When support is announced by Sangoma, Pronexus will test and support it.

VBVoice 11.0 Service Pack 2

Release Notes (v11.0.2)

Aug 23, 2022

This service pack cumulates all the fixes and improvements since the previous release. It also upgrades support for the latest Dialogic HMP drivers and Microsoft Windows operating systems.

What's new?

VBVLog - save all channel logs as text

VBVLog and VBVRlog save the logs in a binary format. A menu option allowed saving the log for one channel as text, so it could be easily analyzed but this is not practical for large systems. A new menu option allows now to save as text all channels' logs, making much easier to find errors, specific data, etc.

Clearing some channel variables on call termination

Currently, the digits collected by GetDigit controls are stored in Digits[channel] property and are cleared after Enter event, just before collecting new digits, potentially remaining in memory for the next call. Based on an ini setting, all GetDigits.Digits[channel] are cleared when the call is terminated on the specific channel.

[SYSTEM]

ClearDigitsVarsOnCallEnd=1

Default value is 0, the old functionality.

VBVFrame's transfer variables scope is left to developer's decision and currently they are not cleared by VBVoice on call termination. Some could be used independently from channel (call), like setting a value used by some channels for all calls.

Based on an ini setting, all frame's TransferValue properties are cleared when the call is terminated on the specific channel.

[SYSTEM]

ClearTransferVarsOnCallEnd=1

Default value is 0, the old functionality.

Settable RFC2833 payload

Before this Service Pack the only payload supported for DTM2833 digits was 101.

Using an ini setting, this could be set to a different payload:

[Intel]
DTMFRTPPayload

The default value is 101. Value must be in the range 96-127.

This is global and applicable to all calls.

Windows Server 2022 support

Starting from this Service Pack, VBVoice is supported on Windows Server 2022, with extended support lifetime.

Resolved Issues

- Using VBVMRCPCClient version 2, the sessions terminate with a timeout
- VBVMRCPCClient version 2 - Log fixes and clean config files on install
- OutboundRTPAddress not set correctly
- Change of TTS speaker at runtime does not work
- Language tab of VBVFrame errors

General Versioning Information:

VBVoice 11.0.2 has been tested and released using the following:

OS:

Windows Server 2012 Standard
Windows Server 2012 R2 Standard

Windows Server 2016 Standard

Windows Server 2019 Standard

Windows Server 2022 Standard

Windows 10 Enterprise and Professional

IDE:

Visual Studio Professional and Community Edition 2015
Visual Studio Professional, Enterprise and Community Edition 2017
Visual Studio Professional, Enterprise and Community Edition 2019 (preferred)

Note: Visual Studio 2022 is not supported and does not work with the current version of VBVoice.

Dialogic HMP drivers:

Windows Server 2012, Windows Server 2016, Windows Server 2019, Windows Server 2022 and Windows 10 Pro operating systems:

- HMP 3.0 Service Update 540

Sangoma JCT drivers:

Windows Server 2012 Standard and 2012 R2 Standard, Windows Server 2016, Windows Server 2019 Standard, Windows 10 Operating Systems

- System Release 6.0 Service Update 280 for Windows

Note: This is the latest Service Update from Sangoma and it does not support Windows Server 2022, therefore this operating system is currently not supported by VBVoice. When support is announced by Sangoma, Pronexus will test and support it.

VBVoice 11.0 Service Pack 1

Release Notes (v11.0.1)

July 9, 2021

This service pack cumulates all the fixes and improvements since the previous release. It also upgrades support for the latest Dialogic HMP drivers and adds support for Microsoft Azure and Amazon Web Services.

What's new?

Support for running SIP applications on Microsoft Azure

The latest HMP drivers added support for Microsoft Azure and we tested and certified running VBVoice applications on Microsoft Azure, using SIP. Development could also be done on Azure so this means that Azure could be used for all cycles of development, testing and deployment of VBVoice applications.

Support for running SIP applications on Amazon Web Services

The latest HMP drivers added support for AWS and we tested and certified running VBVoice applications on AWS, using SIP. All applications could be now developed and run in Amazon cloud.

Custom SIP timers

The SIP timers T1, T2, T4 (for both Call Controls) and B (only for Pronexus Call Control) could be customized using the following ini settings:

[VoIP]

SipTimerT1= ;default 500

SipTimerT2= ;default 4000

SipTimerT4= ;default 5000

SipTimerB= ;default 64 * T1

All values are in milliseconds (ms).

For Dialogic Call Control, Timer B has the value of 64 * T1 and SipTimerB from ini is ignored.

This could be useful in reducing the time waiting for a response on outbound calls when using UDP for SIP signaling.

Custom Via address for SIP outbound calls

A new ini setting:

[VoIP]

ViaAddress= ;default blank

changes the Via address on outbound calls (for both call controls).

Call Hold and Retrieve for SIP

Capability to respond to hold and retrieve re-invite SIP messages was added to both Pronexus Call Control and Dialogic Call Control. AcceptReinvite ini setting must be set to 1 (enabled) to enable this feature.

For Dialogic Call Control, hold and retrieve capability must be enabled by using an ini setting:

[VoIP]

AcceptHoldReinvite=1,

with default 0 (disabled).

This ini setting is ignored by Pronexus Call Control, which has the hold capability enabled by default.

Resolved Issues

- On SIP, using Pronexus Call Control, calls using SRTP fail because of SDP format errors
- On SIP, reinvites to put calls on hold fail with response code 488
- DeleteOldLogs ini setting has no effect – fixed and enhanced to delete older logs on starting voice system; initially, removing old logs was done only at midnight
- Diagnostic LogCollector errors lead to missing information
- Custom “From” and “Contact” headers for SIP outbound calls using Pronexus Call Control are not processed correctly
- Language tab of VBVFrame does not show
- Auto Updater fails to install on RTM-only machines

General Versioning Information:

VBVoice 11.0.1 has been tested and released using the following:

OS:

Windows Server 2012 Standard

Windows Server 2012 R2 Standard

Windows Server 2016 Standard

Windows Server 2019 Standard

Windows 10 Enterprise and Professional

IDE:

Visual Studio Professional 2013, Update 3

Visual Studio Professional and Community Edition 2015

Visual Studio Professional, Enterprise and Community Edition 2017

Visual Studio Professional, Enterprise and Community Edition 2019 (preferred)

Dialogic HMP drivers:

Windows Server 2012, Windows Server 2016, Windows 10 Pro, Windows Server 2019 operating systems:

- HMP 3.0 Service Update 533

Sangoma JCT drivers:

Windows Server 2012 Standard and 2012 R2 Standard, Windows Server 2016, Windows Server 2019 Standard, Windows 10 Operating Systems

- System Release 6.0 Service Update 280 for Windows

Note 1: Support for Windows Server 2008 and 2008R2 has been discontinued by Microsoft and therefore will no longer be supported by VBVoice.

Note 2: Support for Windows 8.1 has been discontinued by Sangoma and therefore will no longer be supported.

Note 3: Support for Visual Studio 2010 has been discontinued by Microsoft and therefore will no longer be supported.

VBVoice 11.0

Release Notes (v11.0.0)

May 20, 2020

In this release, a series of useful features have been added to increase security, usability, stability and scalability. All improvements since the previous release have been included, such as updated drivers and support for the latest operating systems.

What is new?

VBVoice Auto Updater

When enabled from the VBVoice Control Panel, VBVoice will check periodically for new versions and will notify the user, allowing them to upgrade to the latest supported version.

Input and Output Device Selection in Announce

The previous version of Announce used the default audio devices and could not select the desired ones; the new version allows the selection of input and output devices in the Sound Card Setup section.

To select an input and output device, the user must select Setup in the top menu, click Windows Sound and then select an input and output device from the corresponding dropdown menus, populated with devices currently available.

SIP Support for Outbound Proxies

In a hosting environment, redundancy and load balancing play an important role to assure the needed quality of service; one of the useful ways is to use an outbound proxy. This is done by setting OutboundProxyAddress in the VoIP section of the configuration. It can be in a numerical format or a domain, eventually specifying a port. If a port is not specified, the default 5060 will be used.

Improved Modularity

Some components have been optimized and redesigned for stability and higher densities, and target running in virtual machines (ESXi 6).

Latest Dialogic Drivers Fix Security Risk

HMP 3.0 for Windows drivers, used in previous VBVoice releases, exposed a security risk which was fixed in SU520. The new release uses SU525, the most current version of the drivers available.

New Runtime Manager

The new Runtime Manager functionality has been added to increase security and stability. As a result of these changes, the Runtime Manager requires a new activation. Pronexus Sales team will send all customers an updated license to be used starting with this release.

Resolved Issues

- On SIP, using Pronexus Call Control, calls fail when a Contact field is not found in the incoming SIP message
- Modularity: the application fails with a memory violation on initialization
- Modularity: messages are lost between the master and arbiter, leading to failure to find slaves
- Modularity: failure to start multiple slaves
- Modularity: memory leaks in the master
- Memory leaks in masters, leading to application crash on high call volumes

- Message boxes on errors in an application run as a service blocks the call and the channel is lost without notifying the users
- On high load, for HMP with Dialogic Call Control, some channels do not clear the line on hang-up therefore become unusable
- The version of VBVoice .net interface contains the build number and makes a rebuild of the application mandatory; building with the current release will make it unnecessary to rebuild when upgrading to future service packs
- TTS with VBVMrcpClient v2 does not play correctly when the codec is set to A-Law
- Language control cannot change the voice directory in GUI

General Versioning Information

OS:

Windows 8.1 Pro, Enterprise, 64-bit
Windows 2008 Server R2 (64-bit) with Service Pack 1

Windows Server 2012 Standard
Windows Server 2012 R2 Standard

Windows Server 2016 Standard

Windows Server 2019 Standard

Windows 10 Enterprise and Professional

IDE:

Visual Studio 2010 Service Pack 1 (Professional, Premium)
Visual Studio Professional 2013, Update 3
Visual Studio Community Edition 2013
Visual Studio Professional and Community Edition 2015
Visual Studio Professional, Enterprise and Community Edition 2017
Visual Studio Professional, Enterprise and Community Edition 2019

Dialogic HMP drivers:

Windows 8.1 Pro, Windows Server 2008 R2, Windows Server 2012, Windows Server 2016, Windows 10 Pro, Windows Server 2019 operating systems

- HMP 3.0 Service Update 525 for Windows 7, Server 2008, Server 2016, Windows 10

Sangoma JCT drivers:

Windows Server 2008 and 2008 R2, Windows Server 2012 Standard and 2012 R2 Standard , Windows Server 2016, Windows Server 2019 Standard, Windows 10 Operating Systems

- System Release 6.0 Service Update 280 for Windows

Note 1: Support for Windows 7 has been discontinued by Microsoft and therefore will no longer be supported by VBVoice.

Note 2: Support for Windows 7 and Windows 8.1 has been discontinued by Sangoma and therefore will no longer be supported.

VBVoice 10.2 Service Pack 8

Release Notes (v10.2.8)

August 15, 2019

This service pack is a maintenance release, which cumulates all the fixes and improvements since the previous release. It also adds support for Windows Server 2019, Visual Studio 2019 and the latest Dialogic drivers for both HMP and JCT cards.

Resolved Issues

- On SIP, using Dialogic Call Control, the outbound calls fail when the calling number is empty and SIP registration not enabled.
- Visual Connect installer is not setting the ASP parent's paths.
- VBVoice online help links are not valid.

General Versioning Information

OS:

Windows 7 Pro, Ultimate, Enterprise 64-bit with Service Pack 1

Windows 8.1 Pro, Enterprise, 64-bit

Windows 2008 Server R2 (64-bit) with Service Pack 1

Windows Server 2012 Standard
Windows Server 2012 R2 Standard

Windows Server 2019 Standard

IDE:

Visual Studio 2010 Service Pack 1 (Professional, Premium)
Visual Studio Professional 2013, Update 3
Visual Studio Community Edition 2013
Visual Studio Professional and Community Edition 2015
Visual Studio Professional, Enterprise and Community Edition 2017
Visual Studio Professional, Enterprise and Community Edition 2019

Dialogic HMP drivers:

Windows 7, Windows 8.1 Pro, Windows Server 2008 R2, Windows Server 2012, Windows Server 2016, Windows 10 Pro, Windows Server 2019 operating systems

- HMP 3.0 Service Update 395 for Windows 7, Server 2008, Server 2016, Windows 10

Dialogic JCT drivers:

Windows 7 Ultimate, Windows Server 2008 and 2008 R2, Windows Server 2012 Standard and 2012 R2 Standard, Windows Server 2016, Windows 10 Operating Systems

- SR 6.0 for Windows, Service Update 276

VBVoice 10.2 Service Pack 7

Release Notes (v10.2.7)

March 18, 2019

This service pack is a maintenance release, which cumulates all the fixes and improvements since the previous release. It also supports the latest Dialogic HMP drivers, which fix some important issues.

Resolved Issues

- On SIP, using Pronexus Call Control, on answered calls, the callflow exits Dial Control through “Other” node with a timeout if there was no 180 (Ringing) provisional response received before OK.
- In certain cases, on a range node of GetDigits, the callflow wrongly exits through that node if * or # was pressed. For example, if the range is 100-300, 21* would cause the callflow to exit through that range node.
- On SIP, using out-of-band DTMF (RFC2833 or SIP INFO), in some conditions GetDigits control detects a digit twice and returns a double digit instead of the digit pressed.

- On SIP, using Dialogic Call Control, the ini setting for SIP signaling address (SipSignalingIPAddress) has no effect.
- On SIP, using Pronexus Call Control, the outbound calls fail to authenticate if the registration endpoint address contains a port number.

General Versioning Information

Dialogic HMP drivers:

Windows 7, Windows 8.1 Pro, Windows Server 2008 R2, Windows Server 2012, Windows Server 2016, Windows 10 Pro Operating Systems

- HMP 3.0 Service Update 393 for Windows 7, Server 2008, Server 2016, Windows 10

Excepting Dialogic HMP drivers, VBVoice 10.2.7 has been tested and released using the same drivers and hardware as VBVoice 10.2.6.

VBVoice 10.2 Service Pack 6

Release Notes (v10.2.6)

February 8, 2019

This service pack is a maintenance release, which cumulates all the fixes and improvements since the previous release.

Resolved Issues

- On HMP with Pronexus Call Control, unsupervised dial sends DTMF as SIP INFO when DTMF mode is set to RFC2833.
- On HMP with Pronexus Call Control, RawCallInfo for busy calls is empty.
- When the application uses some custom connections set in Connections Property Page, at runtime, the voice system fails to start.

General Versioning Information

VBVoice 10.2.6 has been tested and released using the same software and hardware as VBVoice 10.2.5.

VBVoice 10.2 Service Pack 5

Release Notes (v10.2.5)

Nov 30, 2018

This service pack is a maintenance release, which cumulates all the fixes and improvements since the previous release.

What's new?

Support for custom connection information in SDP

This applies only to Pronexus Call Control. Using an ini setting, the Connection Data ("c=") field of the SDP could be customized to use an external IP address:

```
[VoIP]
ExternalRTPAddress
```

The default is blank and the local address is used in this case.

Resolved Issues

- Race condition on SIP re-invites when using Dialogic Call Control.
- At runtime, WorkerThread control does not get properties set at design time in the property page.

General Versioning Information

VBVoice 10.2.5 has been tested and released using the same software and hardware as VBVoice 10.2.4

VBVoice 10.2 Service Pack 4

Release Notes (v10.2.4)

Aug 31, 2018

This service pack is a maintenance release, which cumulates all the fixes and improvements since the previous release. It also supports the latest Dialogic HMP drivers, which fix some important issues.

Resolved Issues

- On SIP, re-invites fail when using Pronexus Call Control.
- On SIP, re-invites without SDP fail when using Pronexus Call Control.
- Number ordinal phrases played incorrectly.
- VBVoice applications throw exceptions when starting voice system (StartSystem method of VBVFrame).

General Versioning Information

Dialogic HMP drivers:

Windows 7, Windows 8.1 Pro, Windows Server 2008 R2, Windows Server 2012, Windows Server 2016, Windows 10 Pro Operating Systems

- HMP 3.0 Service Update 387 for Windows 7, Server 2008, Server 2016, Windows 10

Excepting Dialogic HMP drivers, VBVoice 10.2.4 has been tested and released using the same software and hardware as VBVoice 10.2.3.

VBVoice 10.2 Service Pack 3

Release Notes (v10.2.3)

June 7, 2018

This service pack is a maintenance release, which cumulates all the fixes and improvements since the previous release.

Resolved Issues

- On SIP, transfers fail when using Pronexus Call Control.
- DNI cards do not work on HMP with Pronexus Call Control.
- SIP INFO messages are not processed on HMP with Pronexus Call Control.
- Receiving SUBSCRIBE messages causes Dialogic to leak internal resources and stop working on HMP with Dialogic Call Control.
- RTM redundancy fixes.

General Versioning Information

VBVoice 10.2.3 has been tested and released using the same software and hardware as VBVoice 10.2.2.

VBVoice 10.2 Service Pack 2

Release Notes (v10.2.2)

April 16, 2018

This service pack adds some new SIP functionality and cumulates all the fixes and improvements since the previous release. It also upgraded support for the latest Dialogic drivers and Microsoft operating systems.

What's new?

Support for processing DTMF by using SIP INFO messages

To avoid problems caused by in-band DTMF detection, an alternative is sending the DTMF in SIP INFO messages. Eventually, combined with using TCP for SIP signaling, this guarantees a safe digit processing, as opposed to problems arisen from in-band and even RFC2833, which could be affected by lost packets and jitter.

This is supported only for Pronexus SIP Call Control. To use this DTMF mode, an .ini setting must be set:

```
[Intel]  
SIPDTMFMode=SIPINFO
```

In this case, all received and sent digits are using SIP INFO messages. Unsupervised Dial control is sending each digit in a SIP INFO message.

Resolved Issues

- On SIP, GetDigits is detecting some digits twice when RFC2833 is used and the gateway/PBX does an incomplete clamping of DTMF tones; fixed for both Dialogic and Pronexus Call control.
- Ini setting RcvFlags for receiving faxes is not working for HMP; the same setting as for Dialogic JCT is now functional by using [Intel] section with the same values documented for Dialogic.
- SendFax on HMP shows 0 for TotalPages even on successful faxes.
- SIP with Pronexus Call Control: REFER does not reply to authentication requests.
- MRCPv2 does not work for ASR when the grammar is passed as URI.

General Versioning Information:

VBVoice 10.2.2 has been tested and released using the following:

OS:

Windows 7 Pro, Ultimate, Enterprise 64-bit with Service Pack 1

Windows 8.1 Pro, Enterprise, 64-bit
Windows 2008 Server R2 (64-bit) with Service Pack 1

Windows Server 2012 Standard
Windows Server 2012 R2 Standard

Windows 10, Pro, Enterprise 64-bit
Windows Server 2016 Standard

IDE:

The same as 10.2.0

Dialogic drivers:

Windows 7, Windows 8.1 Pro, Windows Server 2008 R2, Windows Server 2012, Windows Server 2016, Windows 10 Pro Operating Systems

- HMP 3.0 Service Update 382 for Windows 7, Server 2008, Server 2016, Windows 10

Windows 7 Ultimate, Windows Server 2008 and 2008 R2, Windows Server 2012 Standard and 2012 R2 Standard, Windows Server 2016, Windows 10 Operating Systems

- SR 6.0 for Windows, Service Update 275

VBVoice 10.2 Service Pack 1

Release Notes (v10.2.1)

January 9, 2018

This service pack is a maintenance release, cumulating all the fixes and improvements since the previous release.

What's new?

Remote Diagnostic Logging for VBVMRCPClient

By setting DiagLogPort in section [MRCP] of the VBVoice.ini file to a valid port, VBVMRCPClient will publish the logs to that port and VBVDiagClient could be used to collect and save the logs. The default is 0, meaning that the logs are saved locally.

Resolved Issues

- DialControl – SIP response codes not passed to CallResult.
- At development time, StartTest fails with an error "Invalid exit node" (#565).
- Voice file path not reset after the call is terminated (#607).

General Versioning Information:

VBVoice 10.2.1, IDEs and drivers have been tested and released on the same operating systems as VBVoice 10.2.0.

VBVoice 10.2

Release Notes (version 10.2.0)

November 15, 2017

This release brings a new look & feel to the VBVoice toolkit for a better experience at development time, as well as a better source control management for VBVoice projects. There are also new features leading to a greater stability and error diagnostic at runtime. It supports the latest operating systems and development tools from Microsoft® as well as the latest drivers from Dialogic, and cumulates all the fixes since the previous version.

What's new?

A New Look & Feel of VBVoice Controls

VBVoice changed the controls' appearance to improve the visual recognition of the product. The controls' colors are now linked by group or based on their functional similarity. All the components have been restyled to follow new trends (similar to Windows 10's style).

There are multiple schemes available to be selected by developers to suit their preferences.

MRCP Performance Enhancements

A new VBVMrcpClient (version 2) has been added to offer developers a version that is able to handle more load than VBVMrcpClient version 1; both versions now also offers redundancy and load balancing.

- *Mrcp Load Balancing*

Servers' addresses are placed in a circular queue; the initial order is the same as the order specified in the VBVoice.ini. When an Mrcp session is being established, VBVoice picks the first address from the queue, matches the address with one of the specified Mrcp Profiles, sends the profile to MrcpV2Client, and places the address at the end of the queue.

This mechanism balances the load between all available servers, avoiding the use of the same server for multiple sessions in a row.

- *Mrcp Redundancy*

If VBVMrcpClient cannot establish a session with a server, it will try to establish a session with the next server in the Server Address Queue. The number of re-tries will equal the number of specified servers.

Dial Control Enhancements

This feature is applicable to SIP calls. When an outbound call does not get a provisional response (network disconnected or the INVITE did not reach the PBX) the call will exit through the "Other" node with a CallResult equal to *vbvNetTimeout (57)*.

New behaviour: If Answering Machine or Fax Detection are enabled, the dial has 2 stages. The first is only about signaling; after a connection is established, a tone analysis is performed. If the caller disconnects during tone analysis, a Disconnect event is fired and the call is terminated.

High Availability for VBVoice RTM on VMware

The purpose of the HA feature is to provide continuously operational VBVoice service.

When the virtual machine running the RTM is moved, the new machine will be able to provide the same functionality.

How to Configure HA Feature:

Edit vbvrtm.ini (from C:\Windows\vbvrtm.ini)

```
[Config]
; default 0 for the full MachineID
UseBasicMachineID=1
```

Diagnostic Logs Collector

In order to collect quickly all the diagnostic logs needed to be sent to Pronexus support (VBVLogs, VIL logs, RTF logs), a new item has been added to the support section of the VBVoice Control Panel. Just select the 'Collect Logs' menu item and choose an output path, and all the necessary logs will be saved in a compressed (zipped) file, ready to be sent to Pronexus Support.

Remote Diagnostic Logging

When chasing a problem, VIL logs are set to log many details and are written to files locally; this can use a lot of disk space. Our logging for Dialogic is based on log4cplus and allows multiple appenders to be used for custom logging. Using a configuration file in DiagnosticLogs directory with the name "Dialogic.log4cplus.properties" will allow the default RollingFile appender to be overridden.

Using ZMQAppender, the logs can be sent to any subscribers through TCP. We provide a standalone application which could collect the logs and save them to files and locations customizable through a GUI.

New Format for Serializing Controls' Properties

Previously, the properties of VBVoice components were saved in .resx files in a binary format, preventing a comparison of different versions in source control. The current version replaces the binary data with clear, readable text, so changes can be easily traced and modifications can be done without opening the project in VisualStudio.

Opening a project in the latest version will perform the transition automatically when modified and saved.

SIP Pronexus Call Control RawCallInfo

Using Pronexus Call Control, the RawCallInfo property of Linegroup is able to retrieve all custom headers and most standard headers.

Automatic Generation of Crash Dumps

A new setting in the VBVoice Control Panel allows automatic creation of memory dumps to be sent to support for analyzing memory violations.

Resolved Issues

- Pronexus Call Control: re-invites not processed in certain scenarios
- Pronexus Call Control: codec negotiation issues
- Memory violation when using database controls in ODBCOwnThread mode
- SendFax throws an exception when using Fax objects

Known Issues

- VBVoice installer may not be able to close automatically some of the applications it needs closed to be able to finish installation without the need for a reboot. This is normal; however, on some systems, when a message box shows up asking whether to retry or ignore, the Windows Explorer process may have already been closed and pressing “Retry” may lead the installer to hang. With Windows Explorer killed, there is no way to continue but to press Ctrl+Alt+Del and open the Task Manager, then from its menu try to run the Explorer process.
- Sometimes changes in a VBVoice form create changes in the sizes of VBVoice controls. These changes can be ignored when committing to a source control repository. If they are committed, eventually their values will stabilize.
- In some cases, using Visual Studio 2017, the Toolbox icons are not visible when connected remotely through RDP.
- Sometimes VBVoice installer fails to install its toolbox in one version or more of an already installed Visual Studio on the target machine. There might several reasons; for example, Visual Studio has not been opened for a while, the user login was forgotten, or a new agreement or license needs to be signed by the user to use Visual Studio. Two workarounds might be needed: either running the toolbox install from the VBVoice control panel after finishing the installation and correcting the login issue to Visual Studio, or manually adding the VBVoice tab and controls to the toolbox after removing the old one if this is an upgrade.
- Simulator is not starting on Windows 2016 and Windows 2012 R2

For known issues related to earlier versions please refer to the previous version release notes.

General Versioning Information:

VBVoice 10.2 has been tested and released using the following:

OS:

Windows 7 Pro, Ultimate, Enterprise 64-bit with Service Pack 1

Windows 8.1 Pro, Enterprise, 64-bit

Windows 2008 Server R2 (64-bit) with Service Pack 1

DNI 300	*					*						23 (23) *
D4 PCIe							N/A	N/A				4
D41JCT	*					*	N/A	N/A				4
D120JCT							N/A	N/A				12
HMP 3.0 SIP Dialogic Call Control	*	*		*	*	*	N/A	N/A	*	*		100
HMP 3.0 SIP Pronexus Call Control	*	*		*	*	*	N/A	N/A	*	*		100

* The bracketed number indicates the number of additional HMP 3.0 IP lines run simultaneously with ISDN-Ni2 trunks (23 lines per trunk). E.g. The DNI1210 was run with 92 ISDN + 150 IP channels for a total of 242 simultaneous channels.

NOTES:

- The asterisks indicate combinations that have been tested.
- The empty fields represent combinations that are possible and supported but have not been tested.
- Fields with N/A (not applicable) represent the not supported combinations.
- The Max Line column shows only the number of channels used in our testing. An application can use more channels, up to the hardware imposed limits.
- Please check with Support for specific card versions

The test machines ranged from dual Xeon 2.14 GHz, 4GB RAM, up to quad Xeon 2.14 GHz, 4GB RAM, running both physical and virtual machines on VMware ESXi.

VBVoice 10.1 Service Pack 2

Release Notes (v10.1.2)

May 2, 2017

This service pack is a maintenance release, cumulating all the fixes and improvements since the previous release.

What's new?

ReleaseResource for TTS and ASR

ReleaseResource control is now able to release the currently allocated ASR or TTS engines; when the resource is not needed anymore, it could be freed and used by another call. Once an ASR or TTS engine is released, it cannot be grabbed again for the same call.

Pronexus Call Control improvements

1. The Ringing reply to INVITE is now containing SDP info
2. Linegroup RawCallInfo can retrieve multiple custom headers; this is driven by an INI setting. If [Voip] RetrieveSipHeader is left blank, RawCallInfo is going to contain all custom headers, one per line. If it is set to a certain header, RawCallInfo will retrieve only that header, the same behavior as using Dialogic Call Control.

Changed default call clearing delay after SIP transfer

The ini setting

[Voip]

SipPostTransferDelayMs

sets a delay to drop the call after a successful SIP transfer; some PBXs fail to complete transfer if the call is dropped right after the application receives a 202 reply (accepted) to REFER.

The default had a value of 0; the new default is 50.

Resolved Issues

- Pronexus Call Control: SIP signaling using TCP does not work
- Fax not working for card types DialogicDM3 and DialogicHMP

Known Issues

All other known issues from VBVoice 10.1.1 still apply to VBVoice 10.1.2

General Versioning Information:

VBVoice 10.1.2 has been tested and released on the same operating systems, IDEs and Dialogic JCT card drivers as VBVoice 10.1.1. For HMP, it was built and tested using HMP 3.0 SU 372.

VBVoice 10.1 Service Pack 1

Release Notes (v10.1.1)

February 28, 2017

systems and development tools from Microsoft® as well as the latest drivers from Dialogic. It cumulates all the fixes since the previous version.

What's new?

VisualConnect™ New Functionality

VisualConnect™, released in our previous version, added to the toolkit the new capability of developing applications that enable a user interaction from a browser with the same callflow as a voice application. This release adds more functionality to components already supported by VisualConnect and adds support for more components.

- 1) New behaviour when the caller presses the back button or refresh:
 - a. The VisualConnect application is now a single page in the browser history, which means pressing back is leaving the callflow.
 - b. A warning message is displayed when pressing back leads the caller to leave the current callflow session. It will not show if the session has already been ended by reaching the end of the callflow.
 - c. Revisiting the URL of the same application starts a new session and restarts at the beginning of the callflow.

- 2) More controls support:
 - a. On a data channel, greetings of type wave now show the text from an accompanying text file, the name of which is created by adding ".txt" to the wave file name; e.g., if the wave file name is x.wav, the accompanying text file is called x.wav.txt. This allows developers to attach meaningful text messages to wave files.
 - b. Delay and WorkerThread controls have been updated to behave in a session similarly to a voice call.
 - c. Record control is now supported. It records an accompanying text file on a data channel, the same file that would show when playing back a greeting of the same .wav file.
 - d. Dial control now supports Transfer mode. It offers the end user a link to call the target number.
 - e. GetDigits control has support for both Dynamic Menus and Mixed Menu mode. It shows a convenient keypad for entering digits when digits are expected. It supports cruise mode (when enabled) using the control's timeouts defined in its properties.
 - f. VoiceRec control supports both Dynamic Menus and Mixed Mode.
 - g. A Text Prompt automatic format enhancement function has been added, which fixes the punctuations and allows a better concatenation of several text phrases. This is particularly useful for Greeting objects of multiple phrases of type VAP.

- 3) Voice-over-Data channel:

VBVoice Controls can define a new greeting, called HintGreeting, to be used to play specified voice prompt only on data channels. The HintGreeting could be the EntryGreeting of the control or a customized copy that may provide extra information or a summary of information useful to the end user.

By default, this feature works on desktops and tablets but requires enablement on some phones to allow an automatic voice playback to HTML5 pages.

Voice-over-data feature is controlled by a system-wide INI setting.

- 4) Cruise Mode:

This feature makes data sessions behave in a way similar to telephone voice calls. VBVoice controls now automatically proceed to the next ones when possible (no data input expected), following a voice-over-data prompt playback.

Consolidated .NET Assemblies

The VBVoice .NET interface is now consolidated in one assembly, *Pronexus.VBVoice*. This simplifies development because only one reference is needed in VBVoice projects, instead of multiple Pronexus assemblies that had to be referenced before.

MRCP Resource Allocation Enhancements

- 1) VBVoice is now able to allocate a TTS engine at the beginning of the call, making sure a resource is allocated before it's needed. If the allocation failed at the beginning of the call, VBVoice is trying to get the engine on the first play of TTS phrases. Use the following setting to enable this feature:

```
[TTS]
AllocEnginePerCall=1
```

With the default set to 0 (old behavior, allocate when needed).

- 2) GrabResource control is now able to allocate a TTS or ASR engine; set the resource pool name to "TTS" or "ASR"; on exit through OK node, an engine is allocated to the channel. On re-entry, if the engine is already allocated, the callflow will exit through the OK node; otherwise, VBVoice will try again to allocate an engine.

Resolved Issues

- When having two subsequent sayText phrases in a greeting, if there is no space at the end of the first phrase's text or at the beginning of the second, text is concatenated incorrectly before sending the SPEAK request to the MRCP server
- TTS fails to play when the text "sip" is contained by the text to be played
- Dial Control log is misleading when CallResult is a negative number
- HMP with Pronexus Call Control - outbound calls From and Contact fixes
- HMP with Pronexus Call Control – fixes for transfers

All known issues from VBVoice 10.0 not listed here as resolved still apply to VBVoice 10.1.

Functional Limitations

- Running VisualConnect applications has the following limitations for data channels:
 - Maximum number of concurrent sessions tested is limited to 40

All functional limitations from VBVoice 10.0 not listed as resolved still apply to VBVoice 10.1.

General Versioning Information:

VBVoice 10.1 has been tested and released using the following:

OS:

Windows 7 Pro, Ultimate, Enterprise 64-bit with Service Pack 1

Windows 8.1 Pro, Enterprise, 64-bit
Windows 2008 Server R2 (64-bit) with Service Pack 1

Windows Server 2012 Standard
Windows Server 2012 R2 Standard

Windows 10, Pro, Enterprise 64-bit

IDE:

Visual Studio 2010 Service Pack 1 (Professional, Premium)
Visual Studio Professional 2013, Update 3
Visual Studio Community Edition 2013
Visual Studio Professional 2015
Visual Studio Community Edition 2015

Microsoft .net Framework 4.0 and up.

Dialogic drivers:

Windows 7, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2 and Windows 8.1 Pro Operating Systems

- HMP 3.0 Service Update 367 for Windows 7 and Server 2008

Windows 7, Windows Server 2008 and 2008 R2, Windows Server 2012, Windows Server 2012 R2 Operating Systems

- SR 6.0 PCI Service Update 271 for Windows 7 and Server 2008

Note: There is no Dialogic support for Windows 10.

GlobalCall Protocols Version 4.00

Note: Any other versions are not supported

VBVoice 10 Service Pack 1

Release Notes (v10.0.1)

June 27, 2016

This service pack is a maintenance release, cumulating all the fixes and improvements since the previous release.

What's new?

ContactAddress

Some PBXs require a different contact address to be set in the reply to a SIP INVITE message. An ini setting has been added:

[VoIP]
ContactAddress

When left blank (default), the machine's local address is used in the contact header.

Configurable SIP response code when no lines available

The response code to an incoming INVITE, when all the lines are in use and the IVR cannot process new calls, could now be customized. An ini setting has been added:

[VoIP]
NoLinesAvailableResponseToInvite

The default is 486 (Busy here).

Running in development mode warning

Now the developers have the capability to choose to not show the "running in development mode" warning.

Resolved Issues

- Multiple SIP registrations using Dialogic Call Control – only the first registration succeeds
- The toolbox is not installed on VisualStudio 2015
- Custom license feature not working
- VBVoice OLE DB providers throw exception
- Edit phrases dialog in design mode: not able to open files after a play

- Memory leaks when using Pronexus Call Control
- Failing outbound calls when using Pronexus Call Control
- A compatibility issue between IVRGuard and VBVoice 10
- Failing to remove a data channel
- TakeCall from an EnterEvent does not work for some controls on a data channel
- Fixing the behavior of LicenseDrop vbvFrame event and adding another one called RTMConnectionEvent to inform the application when a connection to RTM is lost or restored.

Known Issues

All other known issues from VBVoice 10.0.0 still apply to VBVoice 10.0.1

Functional Limitations Removed

All known limitations from VBVoice 10.0.0 still apply to VBVoice 10.0.1

General Versioning Information:

VBVoice 10.0.1 has been tested and released on the same operating systems, IDEs and drivers as VBVoice 10.0.0

VBVoice 10 with VisualConnect™

Release Notes (v10.0.0)

October 6th, 2015

This release is introducing VisualConnect™, offering capability to develop and run applications targeting data on mobile phones and diverse devices. It adds support for Chinese language, Mandarin and Cantonese.

It supports the latest operating systems and development tools from Microsoft® as well as the latest drivers from Dialogic.

It cumulates all the fixes since the previous version

What's new?

VisualConnect™

VisualConnect™ is a new product added to the toolkit to allow developing applications that enable a user interaction from a browser with the same callflow as a voice application. The developers can use an existing voice application and add data functionality by configuring some channels for data processing or write data only applications using the same components as voice applications. Some specific data or voice functionality could be customized as there is runtime information about the type of call being processed on each channel (voice or data).

- 1) VisualConnect client applications run in a browser on diverse devices: smartphones, tablets, laptops, desktops; browsers must support HTML5. Firefox and Chrome on desktop and Windows Phone on smartphones have been tested
- 2) It is using IIS on the same machine with the VBVoice application
- 3) The same controls and callflow can now be used to run voice channels or data channels
- 4) Data channels do not support outbound calls; if StartCall method is used on a data channel it will throw an exception (Unsupported)
- 5) Phrases from Greetings are converted to text automatically for phrases containing text ((as VAP phrases, SayText, etc); for wave file, the text contains the file name and it should be overridden. A new property called Text has been added to Phrase objects; if set to a not null string, it overrides the automatic text generation. This property also support VBVoice's property substitution technique to provide dynamic contents at runtime.
- 6) Multiple skins could be used for the background and they could be set at runtime per session or even per page.
- 7) LineGroup has a new initial property, MobileAppName that sets the name of the application served by that linegroup. It could be set at design time in Linegroup's property pages or in code before starting the voice system. An empty string in this property (the default value) is considered an application with the name "default".
- 8) VBVFrame has a new method named IsDataChannel (int channel) that returns true for VisualConnect data channels and false for voice channels.
- 9) GetDigis and VoiceRec have been extended to support a menu mode.
- 10) Components not supported by VisualConnect™ (permanent, they are not applicable to data sessions):
 - CallQueue
 - Conference

- DynGrammar
- FreeResource
- GetResource
- GrabResource
- Language
- PlayMsgs
- ReceiveFax
- Record
- ReleaseResource
- ResourceGroup
- ResourcePool
- Ring
- SenFax
- TapRecord
- VerifySpeaker
- VoiceCmd

11) Methods applicable only to voice calls (like Linegroup's BridgeChannelToChannel, ListenToChannel, etc) are not supported for data sessions.

Windows 10 Support

The latest operating system from Microsoft is now supported for development; executing VBVoice applications is limited to VisualConnect channels and running slave applications. Development is now available in Visual Studio® 2010, 2012, 2013 and 2015, including 2013 and 2015 Community editions.

New languages support: Chinese (Mandarin and Cantonese)

Full support for Chinese language has been added, allowing developing IVR applications for both Mandarin and Cantonese.

Setting a different RTP address for outbound calls

For HMP SIP calls, using Dialogic call control, a different address/port could be set for outbound calls by using a new ini setting:

```
[Intel]
OutboundRTPAddress
```

Centralized Diagnostic Logs

In order to provide detailed information to Pronexus about problems related to Dialogic HMP and DMV cards or related to VisualConnect, diagnostic logs are created in a single location for all the applications. VBVConfig could be used to set the location and names of the log files.

```
[DiagnosticLogs]
Location=
default C:\ProgramData\Pronexus\VBVoice\DiagnosticLogs
```

The log file name for Dialogic HMP and DMV cards is set by
Dialogic=
default VBVDialogicHMPVIL.log

DialogicLogLevel=
default 1

The log file name for VisualConnect is set by
DataServer=
default VBVDataServer.log

DataServerLogLevel=
default 1

Log level goes from 1 (fatal) to 5 (debug)

Microsoft Visual Studio 2015 Support

The latest version of Microsoft's main development tool Visual Studio 2013 adds numerous features and facilitates faster development. You can now develop VBVoice applications in VB.NET and C# using Visual Studio 2015, targeting .NET framework 4.0 and up.

Discontinued Support for Windows 2003 Server and Visual Basic 6

As Microsoft has stopped supporting Windows 2003 Server, Pronexus is discontinuing support for Windows 2003 Sever as well starting with the release of VBVoice 10. As there is no currently supported Microsoft operating system to develop Visual Basic 6 applications, we discontinue support for Visual Basic 6 development.

Resolved Issues

- Dialogic HMP with Dialogic Call Control – loss of internal resources leads to application not being able to answer calls

All known issues from VBVoice 8.20 not listed here as resolved still apply to VBVoice 10.

Functional Limitations

- Running VisualConnect applications has the following limitations for data channels:
 - Modularity is not supported for data sessions
 - Maximum number of concurrent sessions tested is limited to 20 on Windows 2012 Server and Windows 10, to 50 on Windows 7
 - TakeCall method could be called only from VBVoice events on the same channel, it does not work when called from another event or for a different channel

NOTE: These are not permanent limitations and will be resolved in future VBVoice Service Packs.

- Windows 10 does not have drivers support from Dialogic yet, therefore only VisualConnect or slave applications for voice could be run; we are going to support running voice channels in Windows 10 soon after Dialogic makes drivers available.

- Dialogic HMP with Pronexus SIP Call Control – not able to answer calls that do not have SDP info in the initial INVITE message

All functional limitations from VBVoice 8.20 not listed as resolved still apply to VBVoice 10.

Functional Limitations Removed

The following limitations have been removed for VBVoice IVRs using Dialogic HMP with Pronexus SIP Call Control:

- Does not support extended codecs, only G.711 A-Law and u-Law are supported
- Does not support multiple registrations.

All other known limitations from VBVoice 8.20 still apply to VBVoice 10

Known Issues

- Running VisualConnect applications on Windows 2012 Server or Windows 10 is limited to maximum 10 concurrent sessions and in certain conditions it stops processing any calls

General Versioning Information:

VBVoice 10 has been tested and released using the following:

OS:

Windows 7 Pro, Ultimate, Enterprise 64-bit with Service Pack 1

Windows 8.1 Pro, Enterprise, 64-bit

Windows 2008 Server R2 (64-bit) with Service Pack 1

Windows Server 2012 Standard

Windows Server 2012 R2 Standard

Windows 10, Pro, Enterprise 64-bit

Note: Windows 2003 Server has been discontinued.

IDE:

Visual Studio 2010 Service Pack 1 (Professional, Premium)

Visual Studio 2012 Service Pack 1 (Professional, Premium)

Visual Studio Professional 2013, Update 3

Visual Studio Community Edition 2013

Visual Studio Professional 2015
Visual Studio Community Edition 2015

Microsoft .net Framework 4.0 and up.

Dialogic drivers:

Windows 7, Windows Server 2008 R2, Windows Server 2012, Windows Server 2012 R2 and Windows 8.1 Pro Operating Systems

- HMP 3.0 Service Update 360 for Windows 7 and Server 2008

Windows 7, Windows Server 2008 and 2008 R2, Windows Server 2012, Windows Server 2012 R2 Operating Systems

- SR 6.0 PCI Service Update 271 for Windows 7 and Server 2008

Note: There is no Dialogic support for Windows 10.

GlobalCall Protocols Version 4.00

Note: Any other versions are not supported