Business Communications Manager Release 3.5

Frequently Asked Questions (FAQ)

1. What new features are introduced with Release 3.5?

Circuit Switched Telephony

T7316E + T24 KIM Centralized
  Answering Position
Passive CLID
System Speed Dial Increase
Passive Call Log
Centralized Voice Mail & Auto
  Attendant
Global ATM (Analog Trunk Module)—
  NA, UK, Australia
Autohold During Incoming Page
Answer/DSS key
IP Music on Hold
Tandem E.164
BST Doorphone

IP Telephony

H.323 Interop
– Succession* 1000/1000M
– Meridian*1 IPT
– RadVision ECS

SIP trunk support
– Data Services
– BCM to BCM
– Codec Negotiation

Enhanced i2050 USB Audio Kit

Management

NCM 3.0
– FTP support
– Off-database Storage
– Enhanced Reporting
– Patch Distribution
– Voice Mail backup/restore

BCM Management
– Secure Dial-back
– SNMP Trap Dial-Out
– SNMP Alarm Maintenance

Data

Universal T1 via DTM
T1 PPP fragmentation
FRF.12
T.38 Fax

Applications

Call Center
– Expected Wait Time
– Agent Help

Messaging
– AA Holiday Schedule
– AA Park & Page
– Channel Capacity Increase
– Increase to 200 Unified
  Messaging Users
– IVR Park & Page

Base Platform

Upgrades
– 3.0 Upgrade
– 3.0.1 Upgrade

Serviceability
– OS SP6
– BCM Monitor
– Unified Manager Help
– UPS Integration

Security enhancements
– SSL encryption
– SSH encryption
– Password control

2. Is there a price increase on BCM 3.5?

No. The price of BCM200 and BCM400 with 3.5 software will remain the same as 3.0.

3. What is required to upgrade from 3.0 to 3.5?

A software upgrade CD will be available as a no-charge, orderable item to upgrade BCMs from 3.0 and 3.0.1 to 3.5.

4. What if my BCM is on release 2.5?

If the BCM was originally a 2.5 platform, you must use the 2.5 to 3.0 software upgrade package (also a no-charge, orderable item) to take it to 3.0/3.0.1 first. If it was originally a 2.0 platform that was previously upgraded to 2.5, it will also require a 20 GB hard drive. A hard drive upgrade package (NTAB9747) is also available for order.

5. Do any of the new features require keycodes?

Yes, but only when they are enhancements of an existing feature that requires keycodes. For example, Expected Wait and Agent Help come standard with Call Center, but to enable Call Center, you still need the Basic or Professional Call Center keycode.

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6. Is any hardware required?

No, for most customers. But if you will take advantage of Unified Messaging with over 100 users, your BCM will need to add a 256 MB memory module to bring the system up to 512 MB RAM.

7. What enhancements to basic telephony features are delivered with BCM 3.5?

T7316E + T24 Key Indicator Module— The T7316E telephone has been enhanced to support the new T24 Key Indicator Module (KIM). Together, they create a BST Centralized Answering Position (CAP). Each T24 KIM has 24 programmable buttons for features/lines/autodials and provides support for busy lamp field/direct station select (BLF/DSS), multiple hunt groups, and multiple line appearances. Up to 9 T24 KIMs can be added to a T7316E if used for BLF/DSS. If the CAP must support multiple target lines, up to 4 T24 KIMs can be added to a T7316E.

System Speed Dial enhancement increases the number of System Speed Dials from the existing 70 to 255, *and also provides a field to enter the name associated with the entry.*

Alpha Tagging is a feature that enables the BCM to receive an incoming CLID, and if the number matches a System Speed Dial number, display the name associated with it. If CLID Name is received from the CO, it takes precedence (i.e., the system speed dial name is ignored when the name from the CO is received).

Passive CLID allows the CLID to be displayed on up to 30 sets having line appearance (Appear and Ring or Appear only), for an incoming external call on a physical or target line. Previously, CLID was displayed only on one designated station during incoming ring state, unless the Call Info feature/button was activated.

Passive Call Log allows calls to be recorded in the Call Log without lines being explicitly assigned to the set.

Centralized Voice Mail and Auto Attendant means that BCM CallPilot* Voice Mail can now act as a centralized voice mail (host) for Norstar*, Succession* call servers, and other BCMs, connected over an MCDN network. The solution will support a maximum of ten platforms networked together and up to 1,000 users. This also means that the host BCM Auto Attendant can route calls to remote BCM or Norstar stations by dialing their extensions or using Dial by Name.

8. What is required to support Centralized Voice Mail?

Each BCM (central and remote) must be equipped with an MCDN keycode and sufficient IP or PRI trunks to handle the traffic. Norstars must be at least MICS 6.0 and be equipped with PRI Enabler keycode, the Advanced Private Networking option and have a Digital Trunk Interface. You must have sufficient mailbox keycodes at the central BCM site.

9. Can I use the new Norstar IP Gateway to connect to the Centralized Voice Mail on the BCM over IP?

No. The Norstar IP Gateway does not support MCDN and cannot support signaling for centralized Voice Mail.

10. What is Global ATM?

The Global ATM is a new 4- and 8-port Global Analog Trunk Module (GATM) that supports analog trunk interfaces in the United Kingdom, Australia, as well as North America. They replace the existing CTM 4 and 8, and offer improved acoustics. One physical difference is that the new GATM interfaces through a standard 50 pin male Amphenol connector, instead of the RJ-11 interfaces of the existing CTM 4/8. Another difference is that the existing CTM 8 has two Aux ports for power fail bypass and line exclusion, while the GATM 8 has only one Aux port.

11. What is Autohold During Incoming Page?

This is a new feature that allows each set to automatically and immediately place an active call on hold when an incoming page is being presented to that set. In addition to having an active call held when a page comes in, a set will also have the auto held call returned to the original active state once the interrupting page terminates. This feature ensures that important pages are not missed while on regular telephone calls.

12. What if I'm on an important call and don't want to hear the page?

You can press the held call and immediately return to your call.

13. What if I don't want my calls automatically placed on hold every time there is a page! Can I turn Autohold During Incoming Page off?

Yes, it is configurable on a station-by-station basis.

14. What is the Answer/DSS key?

In the past, it took one button to have an Answer DN appearance to answer a call placed to a station, and a second button to have a DSS (Direct Station Selection) button to call an internal station. The new Answer/DSS key allows a user to have both functions on one button. When the key is idle, pressing it acts as a DSS button to call a station. When it is ringing, pressing it acts as an Answer DN button. This conserves buttons on the user's set and simplifies call handling.

15. What is IP Music on Hold?

IP Music on Hold is a new capability that allows the customer to either place a WAV file of music or information on the hard drive of the BCM, or to accept streaming music source via IP. Customers no longer have to purchase an external music source (along with separate power supply and adapter cables) connected to the BCM, and they no longer have to worry about tapes wearing out or shipping CDs to sites.

The IP Music source is setup through Unified Manager, so it can be administered from anywhere on the customer's network. A new Web-based tool called BCMAmp is used to upload files to the BCM hard drive and establish a playlist. And NCM can be used to distribute WAV files to multiple sites simultaneously.

16. What does Tandem E.164 mean?

E.164 is an international standard for dialing plans, and adherence to this standard means that BCM will accommodate the new longer international telephone number format as it is implemented, and allow tandeming of Local, National, International, and Special call types using MCDN protocol variant. This includes MCDN over PRI and MCDN over IP.

17. What is a BST Doorphone?

A Doorphone is a weatherproof speaker with a button that is often mounted next to a door. When the button is pressed, it calls a predetermined telephone, typically the operator or another individual. The person at the door can use the Doorphone to request entry and be questioned before opening the door.

Optionally, the door can also be equipped with a Door Opening Controller to allow the door to be unlocked from the internal telephone. Although this capability has existed for Norstar, it has not been available for BCM until now. The new BST Doorphone uses a digital station port, and because of the tight integration with the BCM, is controlled with easy-to-use soft keys.

18. What does H.323 Interop mean?

As Voice over IP enhancements are made on new releases of Meridian 1 and Succession 1000, H.323 Interoperability ensures that BCM will maintain its IP trunk compatibility with those products.

19. What is SIP Trunk Support and what does it do for me?

Business Communications Manager (BCM) has supported H.323 as its sole VoIP trunk protocol in previous releases. Session Initiation Protocol (SIP) is a signaling standard, similar to H.323, and has gained wide industry acceptance since it received official approval as an RFC in IETF in March 2000. SIP's scalability, extensibility, and flexibility appealed to service providers and vendors who had needs that a vertically integrated protocol, such as H.323, could not address.

BCM 3.5 supports SIP trunk interoperability to another BCM 3.5, along with data service such as Network Address Translation (NAT), firewalls, and Quality of Service (QoS). In later releases, this capability will be extended to other Nortel Networks platforms such as the Multimedia Communication Server (MCS) 5100/5200 and others.

20. Does this mean that BCM will support SIP sets?

No. But BCM 3.5 can support SIP calls through the BCM to existing IP and digital sets. BCM customers will not have to replace existing sets to take advantage of SIP trunks.

21. What is Codec Renegotiation?

BCM has always had the ability to negotiate an IP codec (such as G.729 or G.711), which occurred during call setup. This new feature is really Codec Renegotiation and allows the Codec to be negotiated more than once during the lifetime of the call.

Codec Renegotiation eliminates a number of scenarios in which calls could be dropped because of changes during an active call. For example, if a VoIP call between two BCMs is connected using a G.729 codec and one end of the call is transferred to a third VoIP

Gateway that does not support G.729, the codec is now renegotiated instead of the call being dropped.

This feature eliminates the requirement that all the VoIP Gateways in a network do not have to have their codec preferences configured identically and allows configuration to be optimized for different network situations, e.g., enable or favor G.711 on some BCMs and not others.

22. What is the i2050 USB Audio Kit?

The feature refers to the support of a new USB interface for the i2050 Software Phone. The new i2050 USB Audio Kit includes hard buttons or controls for the most frequent features that include answer, hold, mute, volume, and hang up. This eliminates the need to quickly negotiate a mouse to the i2050 GUI when answering a call, etc. In addition, the new USB also supports i200X handsets for those customers that prefer a handset over a headset. In order to use the new i2050 USB interface, the user must download a new version of the i2050 from the BCM 3.5 hard drive. The first 16 i2050s are included free with BCM. After that, you must purchase addition copies of the i2050 Software Phone.

23. What new features are in NCM 3.0?

In addition to the previously supported features, NCM 3.0 includes the ability to:

- Distribute software patches to multiple BCMs using the NCM server
- Transfer files greater than 32 MB via FTP between NCM and an FTP server
- Store data off NCM database; allows BCM database to be stored in server other then NCM
- Backup and restore voice mail files
- Enhanced reporting capabilities, including:
  – System inventory
  – Quickstart information
  – System identification only
  – Telephone directory
  – Telephone configuration
  – Target line
  – LAN/WAN interfaces
  – Full configuration
  – Partial configuration (user customization tool included)
  – Port inventory
  – Alarms

- NCM support of new BCM 3.5 features, including:
  – *System speed dials:* A new node will be added to telephony services for system speed dial parameters
  – *Auto Attendant holiday scheduling:* NCM users will be able to import the holidays, make changes to existing holidays, or add new ones and export the changes to the BCM. Each holiday node will be labeled with the holiday name, i.e., "Christmas"
  – *UPS integration:* A new node will be added to the NCM tree for UPS parameters
  – *IP Music on Hold:* NCM will enable users to copy BCMAmp audio files and playlist (order in which the audio tracks are played) from one BCM and upload them to multiple BCM targets. The audio files and playlist will be treated as a single binary image during the copying and upload process. For example, the user will not have the ability to modify the playlist before uploading the file to the target BCMs.
  – *SIP:* SIP trunking data can be imported into and exported from NCM

NCM Try-n-Buy keycode has been introduced that will allow a 60 day trial of NCM software.

24. If I have NCM today, do I automatically receive an upgrade to NCM 3.0 when I upgrade my BCM to 3.5?

No, not necessarily. NCM software runs on a separate server and must be separately upgraded to NCM 3.0. If you currently have NCM 1.0, you are eligible for a free upgrade to NCM 2.0. Only customers with an NCM service contract will receive a free upgrade to NCM 3.0.

25. Can I continue to use NCM 2.0 to manage BCM 3.5 systems?

No. NCM 2.0 cannot be used to manage BCM 3.5 systems. NCM 3.0 can be used to manage BCM 3.0 systems, but without access to all of the features of NCM 3.0.

26. Is it too late to sign up for an NCM service contract?

No. You can purchase an NCM 2.0 service contract up to the date that BCM 3.5 and NCM 3.0 become generally available (October 20, 2003). If you purchase the service contract after that date, the service

contract will be assumed to apply to NCM 3.0, and you will not receive the NCM 2.0 to NCM 3.0 upgrade.

27. If I do not have an NCM service contract, how do I upgrade from NCM 2.0 to NCM 3.0?

It is highly recommended that you purchase an NCM 2.0 service contract prior to October 20, 2003 when NCM 3.0 becomes generally available. The service contract (purchased prior to October 20, 2003) will entitle you to the NCM 2.0 to 3.0 upgrade, as well as an upgrade to the subsequent release of NCM. If you do not have a service contract, you will need to re-purchase the NCM server software in order to move to NCM 3.0. Pricing for the NCM service contracts is very modest and is included in the Nortel Networks Enterprise Services price list.

28. Do I need to upgrade or re-purchase the NCM keycodes as well?

No. The BCM NCM keycode enables the BCM to be managed by NCM. It is independent of the NCM server software release and valid for the life of the BCM.

29. What other new management features are in BCM 3.5?

SNMP reporting has been enhanced to be more user-friendly. The severity of the alarms are now reported, duplicate alarms are eliminated, and the corresponding action to take is now included.

- *SNMP trap dial-out over analog:* In situations where a management provider does not have an always-on IP connection to the BCM, dial-out SNMP traps will be available via the BCM v.90 modem or via ISDN in global markets. The system will be configurable to allow users to designate a primary and backup number, which will be dialed when events occur which cause an SNMP trap to be generated.

- *Secure dial-back over modem:* Secure dial-back over modem feature provides increased security in dial-in management scenarios, in which case dial-back is available to allow the BCM to disconnect dial-in management calls and call back to specified numbers to allow management sessions. If the call-back function is enabled, when the remote user makes a dial-in request, the BCM will authenticate the dial-in user, and then disconnect.

If the authentication is successful, the BCM will call back to a preset number. Once reconnected, both sides will continue and finish up connection handshakes. Afterwards the dial-in user will be able to use Unified Manager or telnet.

30. What is T.38 Fax?

T.38 is an ITU standard to support fax over IP trunks. BCM 3.5 supports fax over H.323 trunks only. SIP is not supported at this time. Remember, the BCM only supports two fax sessions at a time. If you fax from BCM Unified Messaging, across IP trunks, it does require the DSP resources normally required for two faxes, but is considered only one fax.

31. What is UT-1 for DTM?

This stands for Universal T-1 for Digital Trunk Module. A Universal T-1 is a T-1 that supports both TDM voice and data. There could be 16 channels of voice and 8 channels or 512K of data. This can eliminate the need for a second T-1, resulting in significant savings for the customer.

In the past, an extra piece of equipment called a drop and insert CSU/DSU was needed to split the data channel off the T-1. In the spring of 2002, we introduced the Digital Drop and Insert Mux (DDIM) module that combined a Drop and Insert CSU/DSU with a Digital Trunk Module (DTM). The DDIM supported both external routers as well as the BCM's own internal router, connecting the DDIM to the WAN card with an external cable.

UT-1 for DTM allows the BCM to accept a Universal T-1 with both voice and data, and route the data to the BCM's internal router without a DDIM, a WAN card, or external cable. The connection between the DTM and BCM router is all done internally without additional hardware, resulting in additional savings.

32. Does UT-1 for DTM support PRI?

No, only T-1.

33. Does it still require 2 DS-30 loops, like the DDIM?

Yes, UT-1 for DTM also requires 2 DS-30 loops.

34. What if I want to use UT-1 with an external router?

The DDIM is still available to support UT-1 and external routers.

35. What is a Dual V.35 card?

The Dual V.35 card is a new field-installable WAN interface card. Each interface terminates with a miniature DB-26 connector, and a WAN cable is required to interface to a standard on a standard M34 Male connector. The Dual V.35 card is in addition to the existing WAN card with one T-1 and one V.35 interface.

36. Can I use this Dual V.35 to support load balancing?

No. Each V.35 interface has a unique IP address.

37. What does PPP and Frame Relay Fragmentation do for me?

PPP and Frame Relay Fragmentation improve voice over IP quality when using network links with bandwidth of 1 MBps or lower. When using a slow link, link layer fragmentation (e.g., PPP fragmentation) reduces the end-to-end delay for data packets as well as reducing the jitter effect for voice packets. The PPP fragmentation implementation follows RFC 1990. The Frame Relay Fragmentation implementation follows FRF.12 Specification.

38. How about RTP/UDP/IP Header Compression?

This feature provides the option to compress the 40 byte IP/UDP/RTP header into 2 or 4 bytes on a link-by-link basis. When applying this compression over a slower link, it increases the bandwidth utilization significantly. As a result, more concurrent IP trunks can be put into the same link at the same time, and the voice quality is improved because of the reduced transmission delay. RTP/UDP/IP Header Compression is implemented based on RFC 2508.

39. Data Compression over both PPP and Frame Relay

Data Compression helps to achieve a higher throughput by lowering the link bandwidth consumption. With slow links, this feature is especially desirable. Data Compression is implemented according to STAC for PPP and FRF9 standards.

40. How does Agent Help work?

The Agent Help feature allows a call center agent who is busy on a call center call to silently request help from a supervisor by pressing a programmed telset feature key. It is a "panic button" for urgent situations.

41. What if the supervisor is busy or not available?

A supervisor who receives a request for help may choose to accept, refuse, or ignore that request. A request that is refused or ignored becomes escalated—a larger group of supervisors is notified of the request.

42. How does the supervisor help the agent?

When the request is accepted, the system invokes a Silent Monitor session so that the accepting supervisor begins monitoring the requesting agent's current call center call. The requesting agent is informed when the monitoring session begins so that they know that help has been provided. The supervisor can enter the conversation as required.

43. Are there any limitations associated with "Agent Help"?

There is not a specific limit to the number of agents that can have Agent Help keys programmed. The maximum number of simultaneous Silent Monitor sessions that can be supported is 8, and only two-way conversations can be monitored (a supervisor cannot monitor or enter an existing three-party conference call).

44. Does BCM 3.5 really support Expected Wait Time?

Yes, Expected Wait Time is finally here! Expected Wait Time is a new type of greeting that can be played to inform the caller of the expected waiting time in a skill set.

45. Do I have to have Professional Call Center to take advantage of Expected Wait Time?

No! Expected Wait Time is included in both Basic and Professional Call Center. Up to 20 Expected Wait Time greeting tables are supported in Professional Call Center and 5 greeting tables for Basic Call Center. Each table supports up to 11 Expected Wait Time greetings.

46. How does BCM know how long the expected wait time will be?

BCM calculates the expected wait time by taking into consideration the average time in queue per skill set, the number of agents available in each skill set, and the number of calls already in queue in each skill set.

47. Anything else that I need to know?

Expected Wait Time works with Basic and Professional Call Center and Multimedia Call Center.

48. What is Auto Attendant Holiday Schedule?

In the past, if a customer wanted a special Auto Attendant Greeting in place for a holiday, they had to remember to manually put a greeting in place, and then remember to remove it after the holiday. The Auto Attendant Holiday Schedule allows a user to pre-configure special greetings for holidays, etc., in advance. Up to 100 special greetings can be prescheduled up to one year in advance.

49. What is Auto Attendant Park and Page?

This is a feature that allows a caller to select a CCR tree option that automatically parks the call and initiates a specific page that a caller is parked. An employee would know that the call is for them and retrieve the call. The page can be repeated according to the options selected, and if not answered within a predetermined time, would return to the CCR tree for another selection. This new capability performs a feature that is common in retail, healthcare, and many other customer verticals using external equipment.

50. What does Channel Capacity Increase mean?

In the past, there were 16 voice channels available to support Voice Mail, Auto Attendant/CCR, and Call Center recorded announcements and IVR. This was usually more then enough for most customers, but in certain situations when all of these applications were being used simultaneously, some blockage could occur. BCM 3.5 increases the voice channels to 32 channels, doubling the voice channel capacity for these applications. It should be noted that just as today, for each voice messaging channel turned on, you decrease the maximum number of IP clients supported by one.

51. Are there any enhancements to Unified Messaging?

BCM previously supported a maximum of 100 Unified Messaging clients. BCM 3.5 increases this maximum to 200 users.

52. What if I have already purchased the Unified Messaging Unlimited Clients Authorization code? Do I automatically get expanded to 200 users?

No. If you upgrade to 3.5 and have already purchased Unified Messaging Unlimited Client Authorization code, it still only supports 100 clients. If a customer requires more than 100 unified messaging clients, please contact Becky Lance at *beckyjs@nortelnetworks.com* to get an up-issue of the Unified Messaging Unlimited keycode.

53. If I buy a new BCM 3.5 and want over 100 Unified Messaging clients, is there a new Unified Messaging Unlimited Client Authorization Code that I need to support up to 200 clients?

In order to support the maximum of 200 Unified Messaging clients, you need to purchase two Unified Messaging 100 Seat Software Authorization codes.

54. I need 512 Megabytes of memory for 200 Unified Messaging clients? Do I just add another 256 Megabytes of memory?

Yes, in most cases. If your BCM was purchased new as a BCM 2.5 or later, then it is equipped with a single 256 MB memory module. You just add a second 256 MB module in the second memory slot. But if you purchased your BCM as a BCM 2.0 unit, it is equipped with a 128 MB memory module in the first slot. When it was upgraded to 2.5 or 3.0, a second 128 MB was usually in the second memory slot. To get to 512 MB, you will have to replace the two existing 128 MB memory modules with two 256 MB memory modules.

55. What is IVR Park and Page?

IVR Park and Page is a capability that allows the IVR to perform a feature similar to the Auto Attendant Park and Page.

There are also some additional IVR enhancements. The first one is the ability for the BCM IVR to share callers' DTMF input with other applications within BCM, so it can be used for the purposes of database lookup on the caller's number for a desktop "screen pop". The second is the ability for a call to be able to leave a message in a voice mail box, and then return to IVR if desired.

56. What enhancements were made to BCM Monitor?

The BCM Monitor now includes additional information about lines and details about individual calls.

57. What is UPS integration?

BCM 3.5 now includes an intelligent Interface to American Power Conversion (APC) Uninterruptible Power Supplies (UPS). BCM includes APC's NetChute software that allows the APC UPS to initiate a graceful shutdown of the BCM when commercial power has been lost and battery backup is almost exhausted.

58. What is OS SP6?

BCM 3.5 includes Microsoft Service Pack 6A. All available security patches have been incorporated. All relevant Operating System upgrades are carefully tested and are incorporated into BCM releases such as 3.5.

59. What kinds of security enhancements have been included in BCM 3.5?

BCM 3.5 contains numerous security enhancements. Additional information on security enhancements may be found in the BCM 3.5 Addendum to the BCM handbook. Detailed information on the security capabilities of the BCM is available in the BCM 3.5 Security Guidelines document under NDA basis. Here is a brief summary:

- Enhanced password policy and change to defaults
- Configurable password policy settings
- Superfluous accounts have been eliminated
- Account lockout policy
- Default Account locked-out for 30 minutes after 5 invalid login attempts locked out for 30-minute duration, or unlocked earlier by Administrator
- Enhanced application password storage and encryption
- SSL and SSH encrypt management and configuration data
- SCP (Secure Copy) and SFTP (Secure FTP) support
- Encryption of BRU data
- Denial of Service improvements
- Disabling modem interface and control over dial-in access privileges is now configurable
- Limited public information presented by BCM—the BCM does not announce itself to the network Browse Master so that it will not be included in the network neighborhood list

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