



Application Guide: Banking Industry

This document considers the use of VoIP Telephones to help centralise banking services and reduce costs associated with banking in remote branch locations. It also looks at key issues to examine when selecting an effective communication system.



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A Challenge for the Banking Industry

Mature markets. Significant competition and limited growth opportunities. Now more than ever it is important to find ways to reduce costs, increase efficiencies and maximise customer loyalty.

Within the Banking industry there is currently an increasing pressure for:

- Greater focus on customer-centric online, self service and remote banking capabilities
- Better access to centralised services
- Innovation in products and business models

The answer: Strategically manage your costs

In today's troubled financial landscape, the inevitable focus on costs remains a top issue. Norphonic delivers a solution which can help centralise banking services and reduce costs associated with disperse banking in remote locations.

With Norphonic, you can transform your enterprise into a more efficient and cost-effective operation by providing self-service telephone banking in your remote branches.

Automate your bank-selling functions

Telephone services can automate over 60% of functions held a remote banking branch. With a Norphonic VoIP telephone solution you can improve your branch efficiencies by increasing automation, and also boost your cross-selling ratios by providing targeted sales prompts to end-users. Examples of services that can be centralised include:

- Insurance
- Personal Loans
- PIN re-order
- Lost Credit Card
- Health Insurance

Develop applications faster, cheaper, and with higher quality

By using telephone banking within your branches, you can much more rapidly deploy changes to service and banking products, without the need to invest in large-scale training operations. Centralised personal and automatic telephone scripts can be used to inform about new offers related to lending, deposit, and investment.

Higher margins, improved customer satisfaction and freeing up customer agents time

In general, the more services you can outsource to a comprehensive remote telephone service, the more profit you can reap from increased margins, and better alignment to your customer needs. On average, over 60% of all banking services can be completed through self-service channels. Branches who have installed telephone banking service stations typically refer to a doubling of self service customers within the first 3 years of operations, freeing staff at the regional branches to devote more time to assisting people with more complex questions and issues. What is more, customer satisfaction usually increases with 10% and an average installation typically realises a 30% cost saving.



Heavy Duty VoIP Telephones in the Banking Industry

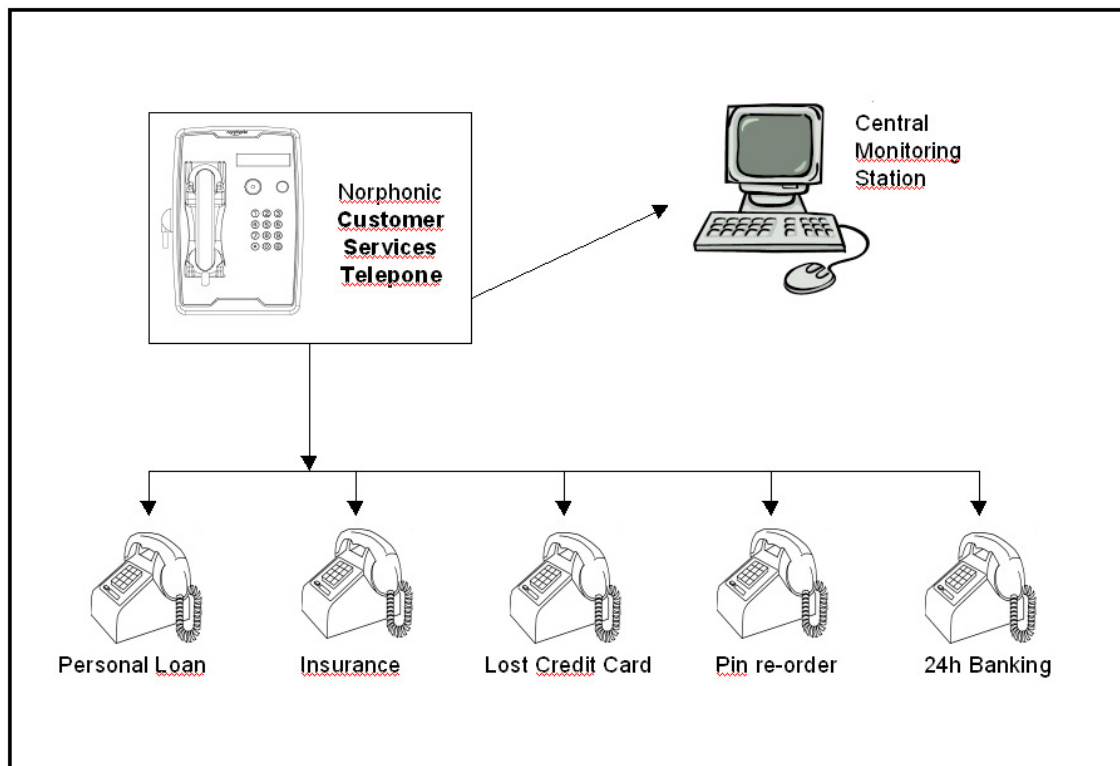
In summary, there are three key reasons why Heavy Duty VoIP Telephones are installed bank branches:

- The bank wishes to centralise banking functions, offering 24 hour access to personal loan, insurance and credit card services
- The bank wishes to automate bank selling functions, improve the service hours and product availability in remote areas
- Conventional telephones are not robust enough to perform in these areas.

In the remainder of this document we shall look at some of the issues that needs to be addressed when selecting a telephone system in your banking application.

Primary Considerations - VoIP Telephones in Bank Branches

The below diagram shows a typical example on a telephone banking installation.



VoIP vs. Analogue Telephones?

In banking applications, the telephone of choice will almost exclusively always be a VoIP telephone. There are many reasons for this, but one key reason is that VoIP telephones have additional features seen as particularly useful in banking applications.

One feature, found in all Norphonic VoIP telephones, is the automatic self monitoring and fault check function, which is useful because it saves on maintenance costs. A central service control room would not want to dispatch a service engineer if not strictly necessary due to the high cost involved with such maintenance visits.

Another key VoIP feature, is the remote management functionality, whereby a remote operator has the opportunity to load telephone software updates remotely, switch the telephone on/off, sense if the hook is in an on/off position and monitor condition of telephone components. This also contributes to lower operation costs.



What to look for in a Heavy Duty VoIP Telephone solution?

There are many issues that needs to be addressed when commissioning a VoIP system for a banking application, such as evaluating the installation environment, functionality and temperature ranges. Below are some key pointers to look at when choosing a VoIP Telephone for your Banking Application:

- Can auto dial facilities be set up, either on handset lift, or via call buttons? This is necessary to easily connect the caller to the correct department.
- Is the handset, cord and telephone casing vandal resistant? Telephones placed in public areas are often prone to vandalism attempts and therefore need to be very robust.
- Is the telephone weather resistant? Often these telephones are placed outdoors to provide 24 hour banking services, and an ingress / IP rating to IP65 is therefore recommended. See definition of Ingress Protection in the below Glossary for further information.
- Is the telephone based on open SIP standards which allows connectivity to your existing networks and systems? IF the product is based on open standards, this also means that the product can be upgraded or changed in the future without having to change the entire system.
- Does the telephone incorporate a self monitoring and fault check function? This is a feature available on all Norphonic telephones, which means that the status of the telephones can be monitored from a remote location, saving you considerable maintenance costs.
- Does the telephone incorporate VSQ - Voice Sound Quality? This is a standard feature in all Norphonic telephone systems, ensuring loud and clear sound, even in noisy ambience areas.
- Is the telephone condensation proof? –This can otherwise lead to severe problems in operation as water can easily form inside the unit, affecting performance.
- Does the VoIP telephone incorporate a QoS – Quality of Service functionality? This feature, found in all Norphonic telephones, guarantees a certain level of performance in a data flow, ensuring impeccable delivery of voice communications in an IP Network.
- Is the telephone CE approved? CE marking means that the product is certified to meet EU consumer safety, health or environmental requirements. End users should be aware that some telephones use the intentionally confusing term "CE" for "China Export", and the only way consumers can check this is to closely examine the CE mark/ logo as the two logos are very similar.
- Can the telephones be customised with the corporate colours and logos? This is often a requirement to build up brand loyalty and repeat visits. Norphonic offers customised to suit customer requirements on all volume orders.
- Should audio call boxes be installed to provide the customer with a relaxed and confidential environment inside the branch? private booths are sometimes seen as necessary to provide privacy when discussing sensitive information.



GLOSSARY

- **Norphonic** – A leading manufacturer of heavy duty VoIP telephones that are used in a wide variety of industrial applications worldwide, including wind turbines, transport (air, sea, road, rail), industry, mining, public places and other emergency areas.
- **Heavy Duty Telephone** – generic term for industrial type telephones used in challenging environments. For example telephones that are exposed to high levels of air humidity, dust, vibration, shock, extreme temperatures, rain, seawater or attempted vandalism. Heavy duty telephones is used in many applications including transport, offshore, production floors, chemical processing sites, mines, transit tunnels, university campuses and other public places.
- **VoIP Telephone** – Voice over Internet Protocol is a general term for delivery of voice communications (voice, facsimile and voice-messaging applications) over an IP network, rather than the public switched telephone network (PSTN). Other related terms frequently encountered and synonymous with VoIP are IP telephony, Internet telephony, voice over broadband (VoBB), broadband telephony and broadband telephone.
- **SIP** – Session Initiation Protocol, is the most widely used signaling protocol for controlling multimedia communications sessions (such as voice and video footage) over Internet Protocol (IP).
- **Industrial Telephone** – General term for a telephone used in challenging areas, for example production floors, wind turbines, machinery or other industrial environments.
- **Point to Point Communication Telephone** – used to communicate between two points, often installed in large lifting machinery, cranes, underground mines and wind power systems. Usually, point to point communication telephones are hooked up directly with each other, eliminating the need to go through a private automatic business exchange (PABX) or a common telephone carrier.
- **Service Telephone** – used by service engineers and maintenance personnel to communicate with a central control room
- **Seawater Resistant Telephone** is a description of telephones that are resistant to corrosion from seawater, often metal coated with a protective solution paint.
- **Vibration Proof Telephone** – Description of a telephone that is tested and approved to withstand ongoing vibrations, frequently encountered in emergency roadside or railway applications.
- **Shock Proof Telephone** – Description of a heavy duty telephone that has been tested and approved against shock and heavy impact.
- **IP Rating / Ingress Protection Rating / Index Protection** –The IP rating classifies the degrees of protection provided against the intrusion of solid objects, dust, accidental contact, and water in electrical enclosures. The standard aims to provide users more detailed information than vague marketing terms such as "waterproof". The standard consists of the letters IP followed by two digits and an optional letter: for example, the Norphonic Heavy Duty VoIP telephone have been approved to the highest rating against dust "*dust proof*" (6) and can be sprayed with water by a water jet from any direction without any harmful effects (5). Therefore, in this case, the Norphonic Heavy Duty VoIP telephone has a rating of "IP65".
- **Weather Resistant Telephone / Weather Rating** – Usually a common description of a telephone that is rated according to the IP (Ingress Protection) approval tests, but is sometimes also used to define a telephone which can withstand extreme temperatures. See "IP Rating / Ingress Protection Rating / Index Protection" for further information.
- **Waterproof Telephone / Water Proof Telephone** - Description of a telephone that is sealed and immune to water, frequently needed in outdoor environments exposed to rain, snow and mist. However, the word "waterproof" is a common marketing term, and is better defined in the Ingress Protection Rating codes, see also " IP Rating / Ingress Protection Rating / Index Protection " for further information.
- **Dust Proof Telephone** – Description of a telephone that is sealed and immune to dust. Such telephones are regularly needed in dirty environments such as inside heavy duty production



environments and utility sites. See also "IP Rating / Ingress Protection Rating / Index Protection" for further information.

- **RoHS** – product approval code, confirming that the telephone units does not contain lead, mercury, cadmium, hexavalent chromium, poly-brominated biphenyls (PBB) or polybrominated diphenyl ethers (PBDE).
- **CE mark** - is a mandatory conformity mark on many products placed on the single market in the European Economic Area (EEA). The CE marking certifies that a product has met EU consumer safety, health or environmental requirements.
- **Electromagnetic compatibility (EMC) tests** - indicates if a product has been tested / approved against unintentional generation, propagation and reception of electromagnetic energy with reference to the unwanted effects (Electromagnetic interference, or EMI) that such energy may induce.
- **QoS** –Quality of service is the ability to provide different priority of voice and data flows, or to guarantee a certain level of performance to a data flow, ensuring impeccable delivery of voice communications in an IP network.
- **Voice Sound Quality (VSQ)** – is a voice quality feature found in Norphonic telephones, treating the sound so that it is heard extremely clearly even in noisy ambient areas.
- **Noise Reduction** - is the process of reducing noise in a communications signal.
- **Self Monitoring and Fault Check** – is a feature in Norphonic telephones, allowing the telephone to carry out automatic health-check and fault sensing and communicate this, thereby improving uptime and performance whilst reducing maintenance work.
- **PABX hotline / Hot-line** – describes the feature where a hotline is immediately connected when the handset is lifted.
- **Autodial on handset lift** – describes the feature where the telephone will automatically dial a number when the handset is lifted, thereby eliminating the need for the user to remember a telephone number when in distress.
- **Armoured Stainless Steel Cord** – description of a Norphonic telephone cord (vandal proof).
- **Braille** - Braille system is a method that is widely used by blind people to read and write, invented by Luis Braille in 1822 and used on many telephone keypads worldwide.
- **Modbus** – (UDP open protocol) enabling the remote access for status monitoring and control, for example link status, handset on/off and monitoring the condition of telephone components. Comes as standard on all Norphonic telephones.
- **SNMP** - Simple Network Management Protocol, is used in network management systems to monitor network-attached devices for conditions that warrant administrative attention.
- **LAN** – Local Area Network
- **PABX / PBX / EPABX** - A private automatic branch exchange (PABX) is a telephone exchange that serves a particular business or office, as opposed to one that a common carrier or telephone company operates the general public.
- **PSTN** - The Public Switched Telephone Network (PSTN) is the network of the world's public circuit-switched telephone networks, in much the same way that the Internet is the network of the world's public IP-based packet-switched networks. Originally a network of fixed-line analog telephone systems, the PSTN is now almost entirely digital and includes mobile as well as fixed telephones.

