



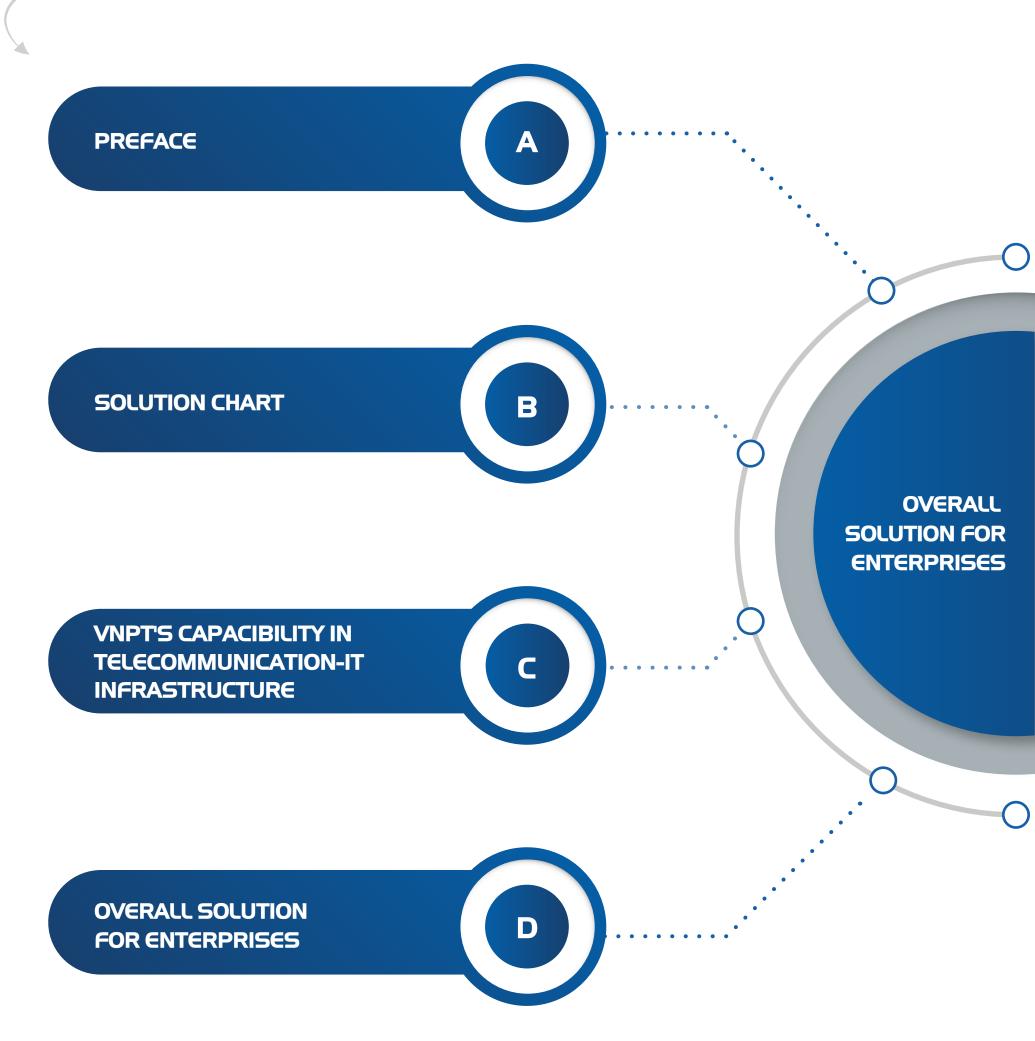
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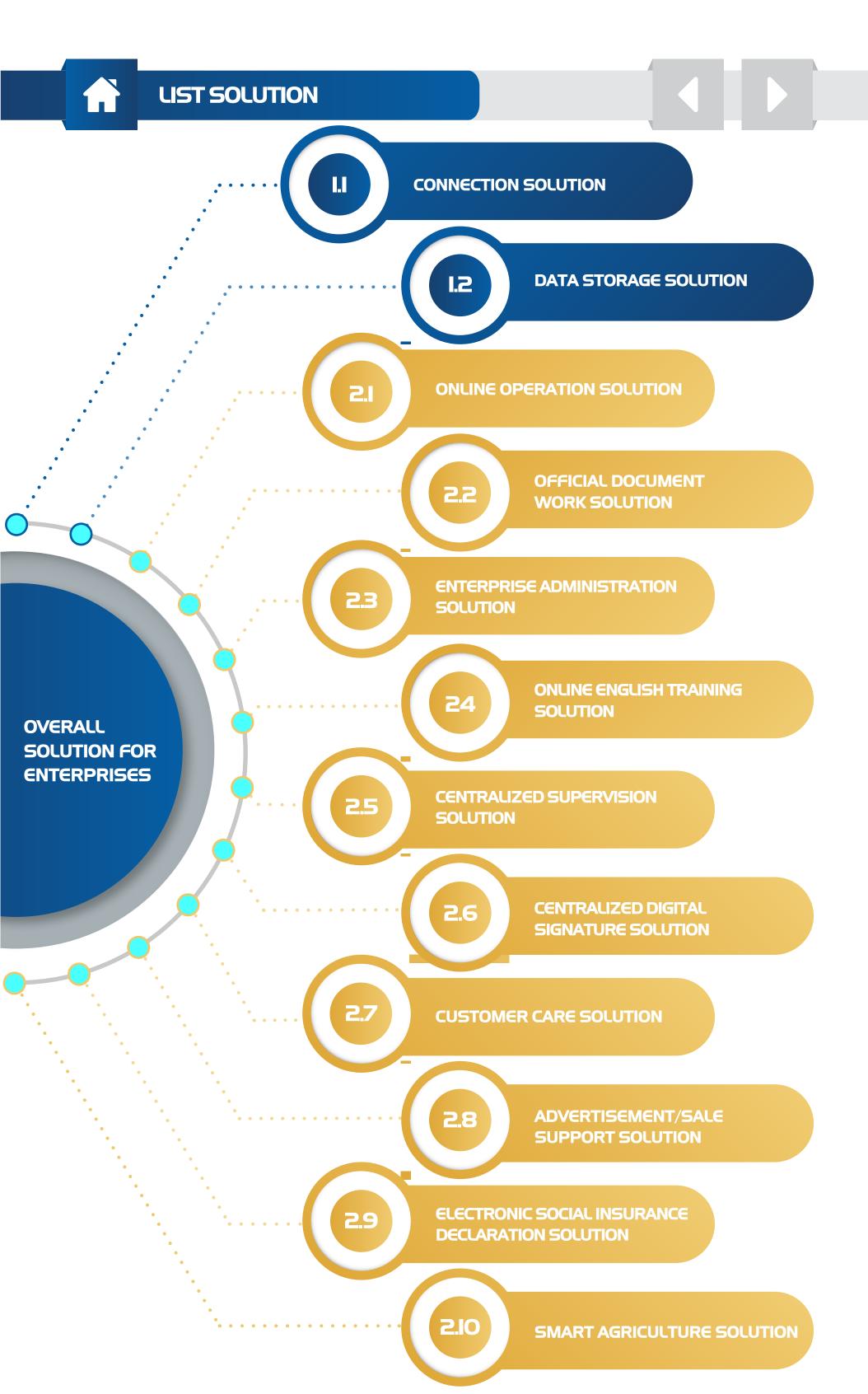


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A. PREFACE

Vietnam Posts and Telecommunications Group (VNPT) is the first service provider to set the foundation for the development of Vietnam's Posts and Telecommunications industry and plays a key role in developing Vietnam into one of the 10 fastest growing countries in the world in posts and telecommunications.

Anticipating the 4.0 revolution, VNPT will focus on developing break-through IT services in business; moving from telecom operator (Telco) to digital era communication service provider (DSP) in order to transform into digital services, value-added services, IT, communications and IT industry. The cooperation and support of customers are a great motivation for VNPT to constantly strive, aiming at becoming the leading digital service provider (Digital Services) in Vietnam and the Digital Transaction Hub (Digital Hub) in the regional and world markets by 2030.

As a pioneer in the field of telecommunications and IT, VNPT always brings enterprises with diversified ecosystem of solutions, ranging from connection solutions like Internet, mobile phone; data storage solution (physical server and Cloud server) to specialized solutions like online operation (television conference, email); enterprises administration solution; official documents/work management; customer care solution; online payment; centralized digital signature, etc.

Proud of being the first-rank provider of telecommunication service in Vietnam, VNPT always focuses on the creativity, the ability of linking different sources in order to bring the opportunity of unlimited connection, bringing the community with the best service experience, partially contributing to creating a society of development, civilization and continuous connection.







B. SOLUTION CHART

I. PLATFORM SOLUTION		
1.1 Connection solution	1.1.1 Enterprise mobility	1.1.2 Fiber VNN
	1.1.3 Direct Internet	1.1.4 Private leased channel
	1.1.5 Private virtual network	
1.2 Data storage solution	1.2.1 VNPT Colocation	1.2.2 VNPT Cloud
	1.2.3 VNPT CDN	1.2.4 Confidential aperture scan
II. SPECIALIZED SOLUTION		
2.1 Online operation solution	2.1.1 Conference Television	2.1.3 VNPT - eCabinet
	2.1.2 Email	
2.2 Official document work solution	2.2.1 VNPT-iOffice	
2.3 Enterprise administration solution	2.3.1 HR management	2.3.2 VNPT-Tracking
	2.3.3 Finance plan management	
2.4 Online English training solution	2.4.1 MyEnglish	
2.5 Centralized supervision solution	2.5.1 Supervision camera	
2.6 Centralized digital signature solution	2.6.1 VNPT-CA	2.6.2 VNPT Digital signature
	2.6.3 Device ID	
2.7 Customer care solution	2.7.1 Siptrunking	2.7.2 1800 2.7.3 1900
	2.7.4 VNPT Cloud Contact Center	2.7.5 SMS Brandname
	2.7.6 Datacode	2.7.7 Vpoint
2.8 Advertisement sale support solution	2.8.1 Smart Ads	2.8.2 E-invoice
	2.8.3 VNPT-Check	2.8.4 VNPT Pay
2.9 Electronic social insurance declaration solution	2.9.1 VNPT-BHXH	
2.10 Smart Agriculture solution	2.10.1 Smart Agri	







C. VNPTS CAPACIBILITY IN TELECOMMUNICATION-IT INFRASTRUCTURE

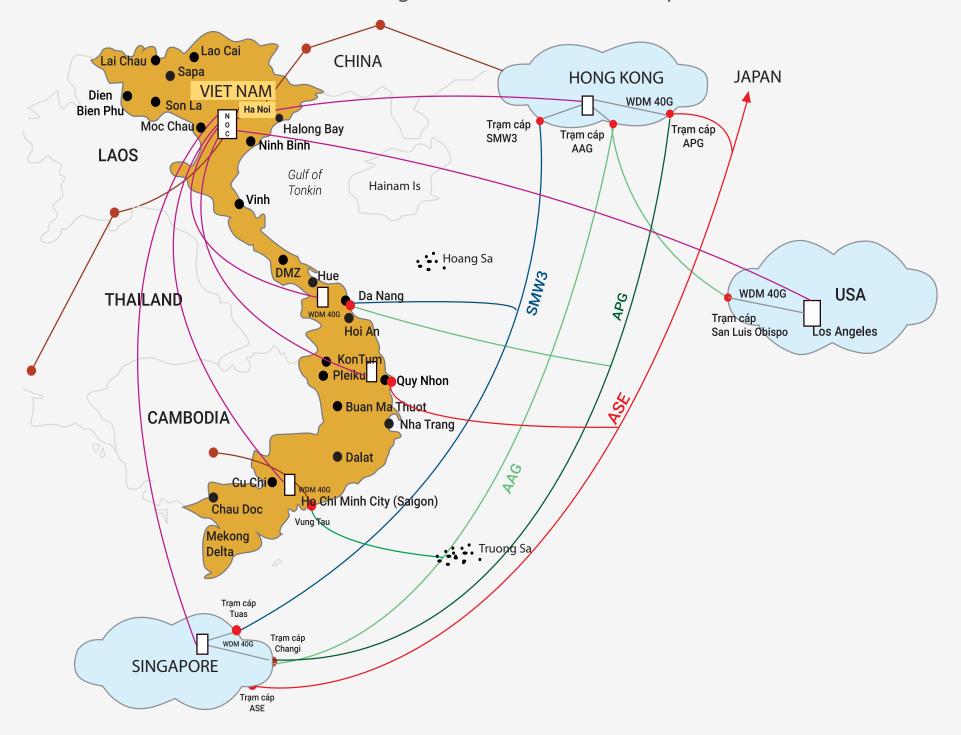
VNPT is an enterprise that puts the foundation for the development of ICT sector in Vietnam, and it is the key enterprise in making Vietnam become one of the countries with the highest speed in developing ICT in the world. Objectives:

To build and develop modern and safe telecommunication infrastructure with huge capacity, high speed, wide coverage to remote areas, border regions and islands.

To provide high-quality telecommunication services with reasonable rate in order to meet diverse need of telecommunication and IT users.

To focus on the integration ability, the interactivity with applications in order to provide the best, unique and most effective services to traditional customers and to look for new customers.

To bring into full play of the convergence of technologies, services, effective use of telecommunication resources. **VNPT** is the first-rank corporation in Vietnam in providing telecommunication and IT services with strong infrastructure and wide-spread network.







INTERNATIONAL TELECOMMUNICATION NETWORK

- Deploy international POP which is located in HKG with current capacity of over 1.7 Tbps
- SMW3 with total capacity of 270 Gbps conntecting to two directions SGP and HKG, TQG.
- AAG has the total capacity of 2026 Gbps, connecting directly from Southeast Asia to the United States.
- APG connects between countries and territories in Pacific Asia region with capacity of 72.9 Tbps (VNPT's capacity is 2660 Gbps).
- The line AAE-1 has total capacity of 240 Gbps, connecting from Vietnam to Hong Kong, France, Singapore.
- The line IA is now exploiting 10G.
- O Capacity of land fiber optic cable lines which connect directly with three neighboring countries: Laos (capacity of 50.16 Gbps), Cambodia (capacity of 157.5 Gbps) and China (capacity of 582.5 Gbps).

NATIONAL CENTRE LINE NETWORK

- VNPT's national centre line network includes North-South fiber optic cable network with current capacity of 5648 Gbps, lying along the National road 1A and Ho Chi Minh road.
- In the coming time, VNPT shall upgrade the capacity of North -South line for 1,100 Gbps more, and other regions for 2,850 Gbps more.
- Fiber optic cable systems in the North, North East and in the South with total capacity of over 17,604 Gbps, combining with Metrolink networks in 4 centers (Hanoi, HCMC, Da Nang, Can Tho), together with VNPT's Toll, NGN gateways has created the strongest trans-provincial transmission system in Vietnam.

MOBILE INFORMATION NETWORK

- With over 53,700 BTS (2G and 3G) and over 21,000 BTS 4G covering 63/63 provinces/cities nationwide, VinaPhone's mobile network is now capable to serve nearly 80 million subscribers and always supports customers with connection at anywhere and anytime.
- Now VNPT's 3G/4G service speed has been certified to be number one in Vietnam (certified by OoKla - the world's leading unit in measuring Internet speed, in March 2019).

FIXED BROADBAND INTERNET

On prediction of the change of technology and market, VNPT has provided broadband Internet service to users since 2003 and it is now serving millions of customers nationwide. The quality and speed of service have been improved to meet the strictest standards. Therefore, the quantity of customers using Internet, fixed broadband services is increasing and VNPT is taking the lead in the market for fixed broadband and Internet services market share.

FIXED TELEPHONE NETWORK

- International switched telephone network: The system comprises 2 softswitches and 3 MGs installed in Hanoi, Ho Chi Minh city and Da Nang.
 - Trans-provincial switched network:
 - + TOLL gateway system: comprises 5 gateways AXE (HNI 02; ĐNG 01; TPHCM 02), with total capacity of 3,065/E1 C7; Capacity of trunk STM1 installing 71 STM-1.
 - + IMS system: is equipped with total 27 MGs with capacity of 4,572 E1.

VINASAT SATELLITE SYSTEM









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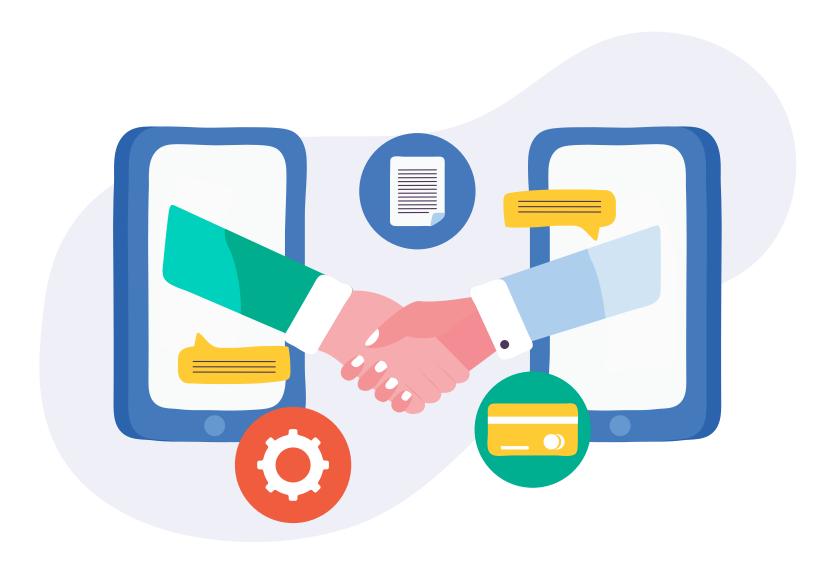


I.I.I ENTERPRISE MOBILITY

Enterprise Mobile service is for customers who make contact frequently with indigenous and international call traffic and other value-added services such as Data transmission, SMS, Ringtunes, MCA, etc. at any time and any where in wide space.

DIVERSIFIED AND FLEXIBLE PACKAGE

- Postpaid voice package calling in Vietnam;
- Postpaid voice package calling in Vietnam;
- Integrated package for enterprises.



O BENEFITS OF THE SOLUTION

- Integrated package is suitable for demand of each Organization, Enterprise.
- Free for internal calls within Organization, Enterprise.
- **Enjoy many preferences:** Policies for representative subscribers; Upgrading VinaPhone Plus card, etc.







CONNECTION SOLUTION







MEG service provides functions of a mobile gateway, including one VinaPhone phone number to use as general gateway (major MEG number), phone numbers of individuals in the enterprise (extended MEG number).



Enterprises have huge number of personnel who frequently go out for transaction.

Enterprises want to strictly manage customer list to avoid data loss when a staff quits the job.

Enterprises have staff in different locations who frequently contact, hold meeting and discuss remotely.







1.1.2







Fiber VNN is a service for accessing to broadband Internet with high speed on fibre cable line, which allows accessing to the Internet with symmetrical band and high speed.

BENEFITS OF THE SOLUTION

• **High speed:** Very high speed of the line, from 30 Mbps.

- **Stable:** Fiber cable covering 63 Provinces/Cities, fiber cable under ground, sea fiber cable of international standards.
- **Security:** The world's leading security software F-Secure is used to protect information from virus, malware.
- **Unlimited capacity:** In addition to high speed of the line, FiberVNN packages also enable customers to download and upload without limitation in capacity.



SYSTEM ADVANTAGES



STABLE QUALITY OF SIGNAL

Without getting any loss caused by electromagnetic interference, weather or long distance.



HIGH SPEED

High speed that is suitable for all customers.



EFFECTIVE APPLICATION FOR SERVICES

Private Hosting Server, VPN, Game Online, Data Transmission, IP Camera, Video Conference, VoD, Interactive Television IPTV, etc. with the advantage of high-speed data transmission.



EASY IMPLEMENTATION

It is easy to implement and upgrade quickly on demand.





1.1.3









Direct Internet is the solution for high speed Internet connection through private leased lines which are directly connected to VNPT's Internet port with very high stability, security and maximum multi-application support ability for static IP address.

DIRECT INTERNET

Internet leased line

is a service for high-speed access of Internet, which is opposite from customer's premise to POP Internet of VNPT with on-demand speed from 1 Mbps to dozens of Gbps.

Peering

is a service that provides direct connection between two networks in order to exchange peer capacity (capacity from one network to another and vice versa).

IP transit

is a service that provides connection to customer who has a private "AS- Autonomous System" to indigenous and international Internet. Connect to VNPT's core IP/MPLS network using BGP protocol.



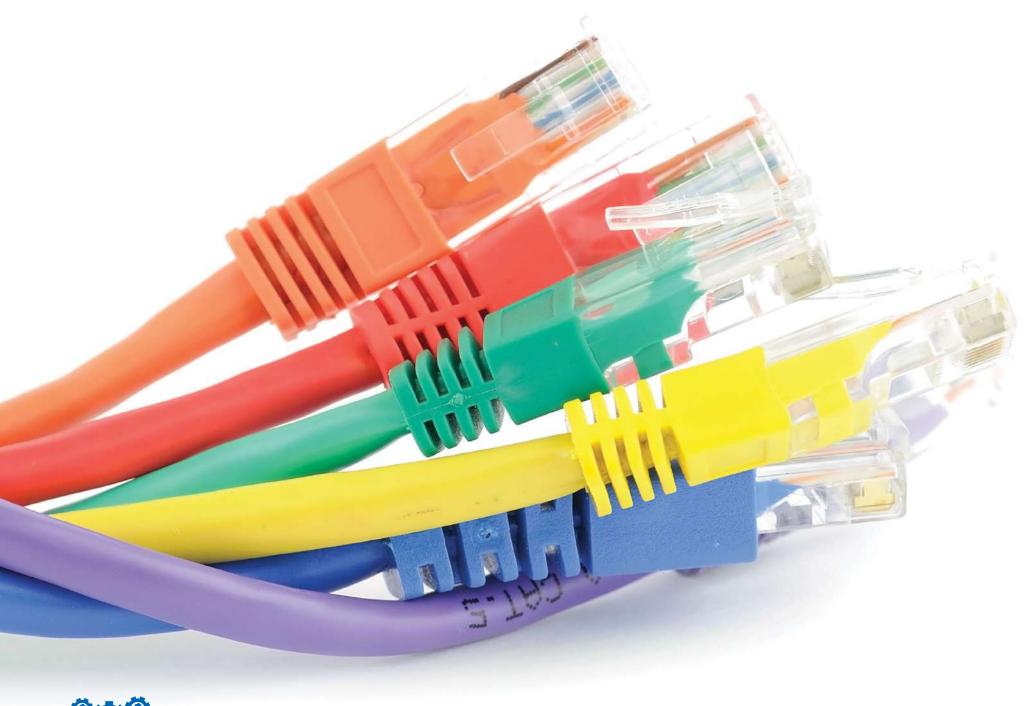






O BENEFITS OF THE SOLUTION

- **Unlimited speed:** The speed of Internet connection on Fiber or copper cable line is from 1 Mbps to dozens of Gbps.
- **Private & direct:** With direct connection to the national Internet port using private physical channel, it is free from delay or network traffic congestion.
- Very stable: Symmetric technology for both upload and download will allow continuous and throughout Internet connection on 24/24h basis.
- **Security:** Private transmission channel will help minimize attacks and intrusions to your data network through Internet.
- Multi-applications: With static IP address ranges provided with stable and high-speed transmission line, these will help customers implement real-time val ue-added applications such as: Proxy Server, Website Server, E-Mail Server, VPN, Video Conferencing, IP Phone, etc.
- Flexible on indigenous and international bandwidth.





1.1.4









I.I.4 PRIVATE LEASED CHANNEL



This service is for **leasing private** physical line to connect and transmit information among internal network terminals, private telecommunication network of customers at two or multiple points with different speeds as required by customers.



INDIGENOUS PRIVATE LEASED LINE

- Local, trans-provincial private leased line (SDH/TDM).
- Local, trans-provincial private leased line (EoSDH).



INTERNATIONAL PRIVATE LEASED LINE

- International IPLC (SDH).
- International IEPL (EoSDH).

O BENEFITS OF THE SOLUTION

- Full control of the line on 24/7 basis.
- Fully meet all applications running on the line: Data, video, voice, etc.
- Very high quality of service, especially brand will be maximized with little lag.
- Provide perfect solutions on protection of lines.
- Extreme confidentiality.
- Suitable with connection models: point-to-point.
- Easy management: line quality monitoring.
- VNPT VinaPhone supports in building optimal solutions for networks of customers.
- Access speed: nx64Kbs, 2Mbps, 34Mbps, 45Mbps, STM1...STM64.
- VNPT VinaPhone has been exploiting leased line with speed 100 Gbps since 2014.









INDIGENOUS

INDIGENOUS PRIVATE LEASED LINE INCLUDES:

PROVINCIAL PRIVATE LEASED LINE:

This is a channel which has the start-point and end-point in the same Province/City directly under the Central.



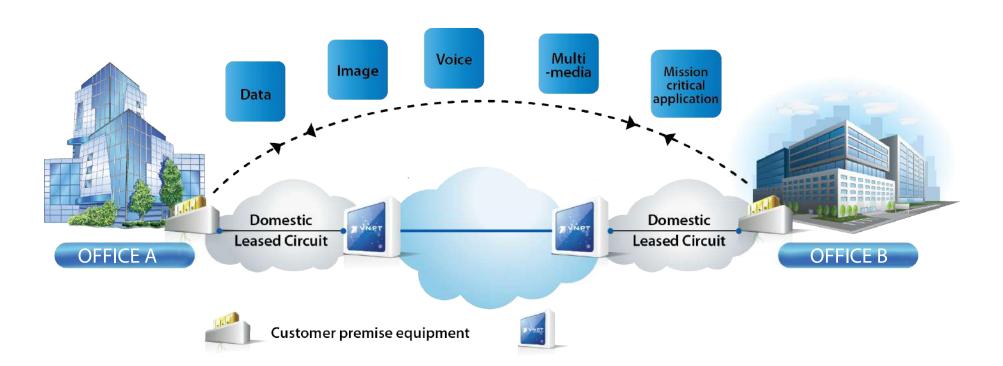


TRANS-PROVINCIAL PRIVATE LEASED LINE:

This is a channel which is established between two start-point and end-point of customers in different Provinces/Cities directly under the Central.

TECHNOLOGIES AND SERVICES PROVIDED BY INDIGENOUS KTR:

- . Private leased channel (SDH) uses synchronical transmission technology and merges channels by time with standard output interface.
- . Private leased channel (EoSDH) uses SDH technology for transmission with Ethernet output interface.





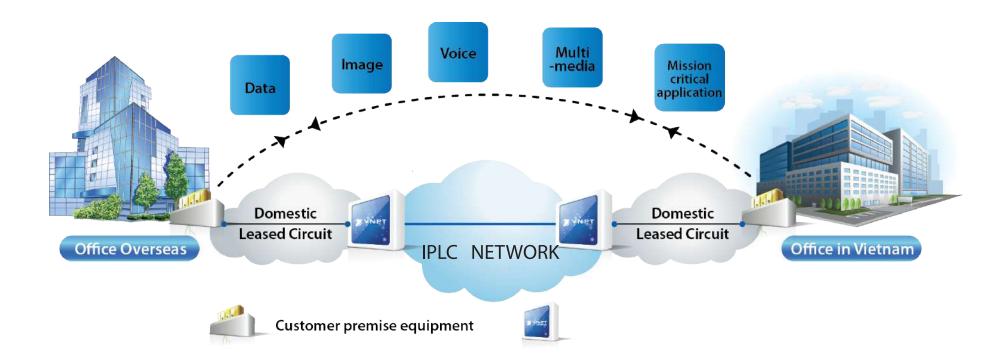




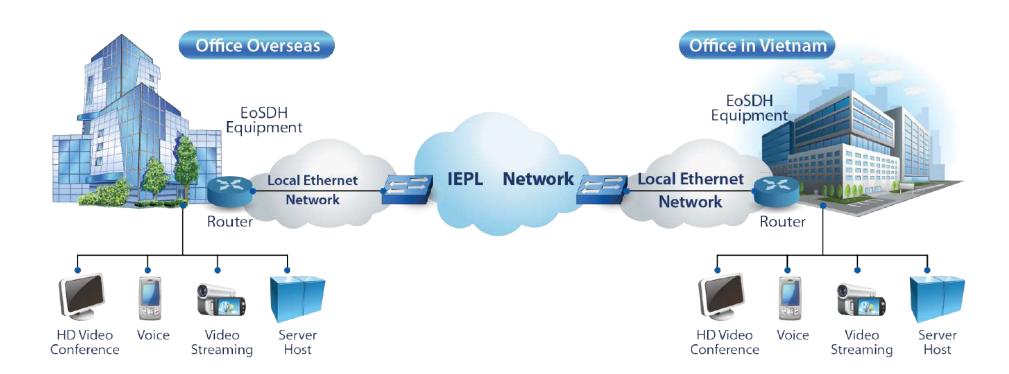


INTERNATIONAL

International private leased line (IPLC) provides direct and private international connection in point-to-point model on submarine and land fiber optic cable system with high level of safety and security. International leased line service is suitable for international enterprises and organizations who need private, safe and reliable connections.



International Private leased Ethernet line (IEPL) is an advanced service of traditional IPLC service that provides direct and private international connections in point-to-point model with standard Ethernet interface (Layer 2) in SDH platform (EoSDH) with flexible speed. IELP service is suitable with and convenient for international enterprises and organizations who need private, safe and reliable connections and flexible speed from 2Mbps onward.







1.1.5









I.I.5 PRIVATE VIRTUAL NETWORK





Private virtual network is the service for connecting private networks (LAN at offices, branches, etc) of an enterprise, organization to one unique private network through general infrastructure of service provider **VNPT**.

WIRE TRANSMISSION

- Local, trans-provincial Metronet (MPLS Layer 2).
- Local, trans-provincial Megawan (MPLS Layer 3).
- Indigenous, international VPN/VNN (MPLS Layer 2, 3).
- International i-VPN (MPLS Layer 2, 3).

WIRELESS TRANSMISSION

- Indigenous VPN 3G.
- VPN VSAT-IP.











BENEFITS OF THE SOLUTION

- Flexible: Easy to implement and easy to change the line speed.
- Can run multiple applications on the line: Data, video, voice.
- **High level of reliability:** With network infrastructure protected by different layers, VNPT provides VPN service with extremely high level of reliability.
- Confidentiality: Very high.
- **Suitable with connection models:** point-to-point, point-to-multipoint, multipoint-to-multipoint.
- Low cost: Concurrently meeting different applications and service connection models, the service supports customers in minimizing monthly cost.
- **VNPT** commits the quality of service providing to customers.
- VNPT supports in building optimal solutions for networks of customers.

(Suitable for enterprises, organizations, ministries, industries, etc., with wide range of operations, including multiple points, who have the need for connecting data such as banks, insurance, aviation)

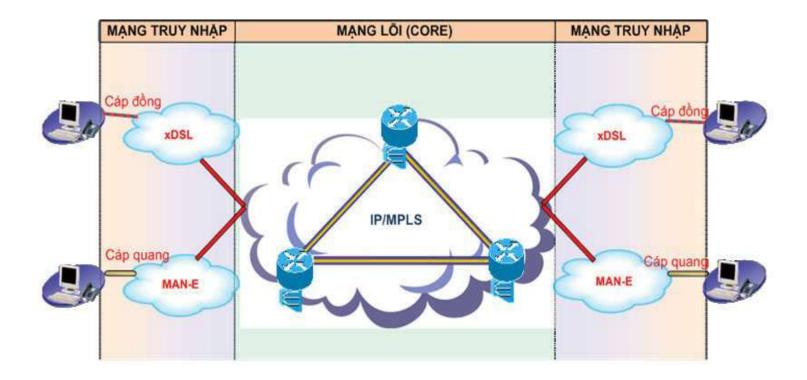






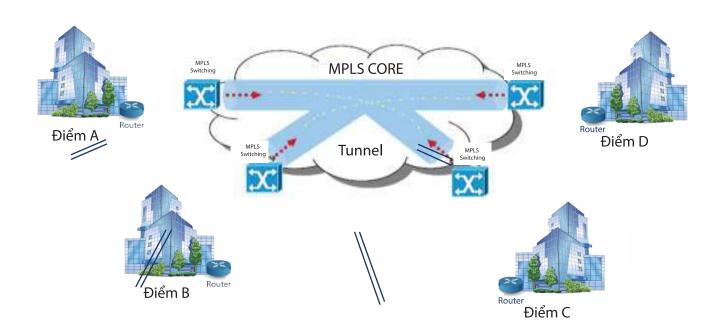
INTERNATIONAL

VPN LAYER-3 (MEGAWAN)



- Support connection ports: ADSL, SHDSL, FE, GE, 10GE.
- Access cable: Copper cable, fibre cable.
- Route basing on IP address.
- VNPT supports in routing for customers.
- Customers can register VPN Layer2 services.

VPN LAYER-2 (METRONET)



- Support connection ports: V35, FE, GE, 10GE.
- Access cable: Copper cable, fibre cable.
- Route basing on MAC address.
- Support multi-interface; customers route by themselves.
- Customers can register two VPN L2 services at the same time through VPN/VNN and VN2 networks (Metronet to back up for each other).





1.2.1

VNPT COLOCATION







I.2.I VNPT COLOCATION

VNPT COLOCATION is a service leasing server hosting, racks, network equipment of customers at **VNPT's IDC**. Customer's server is connected to the Internet with high speed and unlimited information traffic.

VNPT will ensure conditions for locations of servers, racks, Internet connectors, power source, air conditioners, fire and explosion fighting, etc. for customer's server to operate consecutively and safely on 24/24 basis.

BASIC CO-LOCATION SERVICES

Rack-Colocation: Allow customers to rent standard location for rack 19"42U, provided at DC of VNPT.

Colocation: Allow customers to rent location for servers and network equipment.

DC floor area for lease: allow customers to rent a definite floor space at DC to implement their IT system.













• SYSTEM FUNCTION

VNPT COLOCATION SERVICE PROVIDED BY VNPT WILL ALLOW CUSTOMERS TO:



Rent locations for servers, racks, network equipment, Internet connectors, conditions for server operation (electricity, air conditioner, fire and explosion fighting, etc). with competitive price.



Customer's server is granted with 01 real IP address (free) and connected directly to high-speed Internet without limitation of traffic.



Customers can update information, manage and monitor server remotely; build security solutions to ensure safety for servers; build back-up solutions to ensure safety for information stored in servers by themselves.



Customers can select value-added services such as: requirements on network administration, bandwidth, capacity, IP, data transmission connection, etc.



Servers are run on the best storage and transmission infrastructure in Vietnam, which is established by VNPT, to ensure speed and service quality.



Technical support is provided 24/24h, 7 days per week.













O BENEFITS OF THE SOLUTION

OI

Easy connection to Internet: IDC VNPT always connects directly with multi-direction to the National Internet Gateway to ensure that customer server system will always be connected stably with huge band up to hundreds of Gbps.

02

Stable, safe and secured operation: IDC VNPT meets international standard Tier 3 with power source and cooling conditioner which are ensured on 24/7 basis, protected strictly and physical security is seriously applied through supervision camera, fingerprint security systems, etc.

03

Save investment cost: Hiring server in IDC infrastructure will help customers save huge cost of investment, operation labour, etc.

04

Easy expandability: Enterprises can expand or narrow their server system easily, simply when hiring additional services such as space, power capacity, etc., without more investment.



24/7 technical support: With a team of professional staff, VNPT provides 24/7 support to customers in order to ensure safety at highest level for customer's data.







1.2.2









VNPT CLOUD is a service that provides infrastructure, platform for virtual server based on cloud computing technology provided by **VNPT**, which allows customers to establish computing infrastructure with scale from one single cloud server to a system of hundreds of cloud servers with sufficient number of administration tools for optimization.



WHAT IS CLOUD COMPUTING?

In a simple way, cloud computing is the virtualization of calculation and application resources. Instead of using one or more real servers (they are put at premise of enterprise which can be touched or turned on/off by itself), now Enterprises can use virtualized resources through Internet environment. The word "cloud" itself is a mataphor for "Internet".

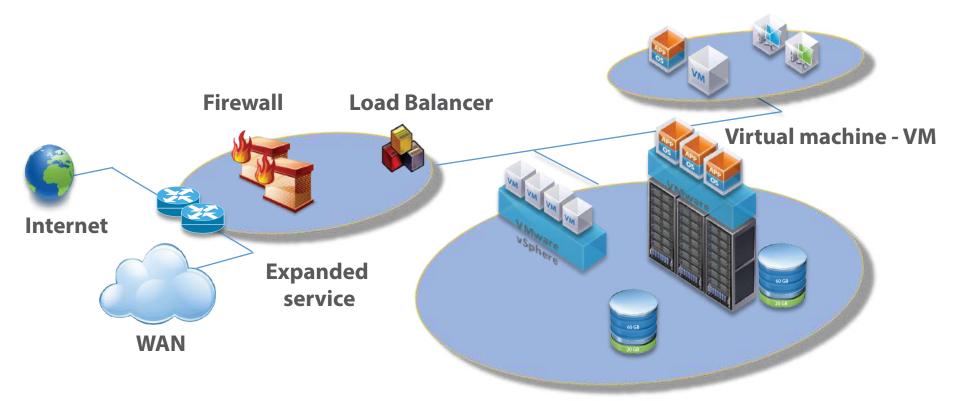
In a simple way, cloud is a set of IT services provided through Internet where users will get more active, for example, they pay what they use, or have right to select the best services to use at any time and anywhere.



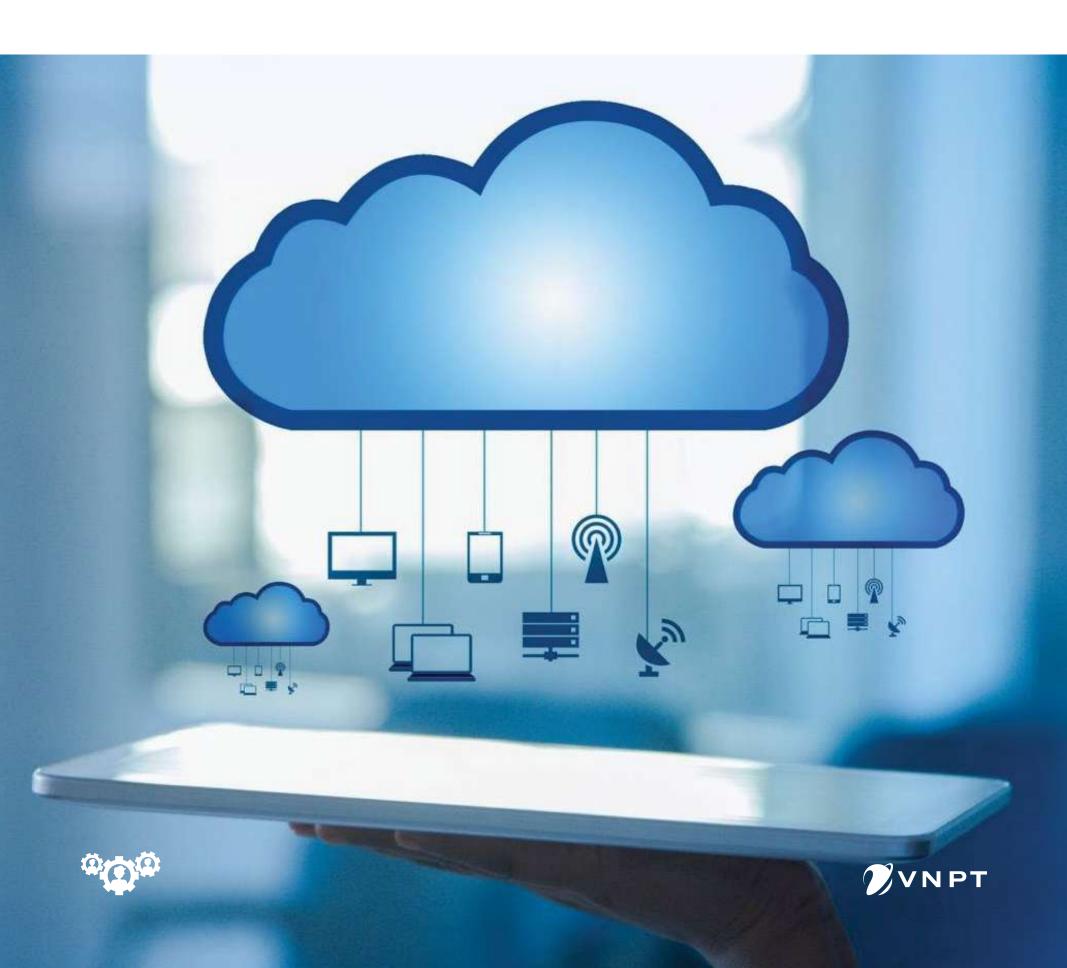




O SYSTEM MODEL



VIRTUAL PRIVATE DATACENTER - VNPT







O BENEFITS OF THE SOLUTION

HIGH READIBILITY

Meet the high level of readability for storage, virtual server and network infrastructure. The system automatically exchanges Cloud server among servers when they face errors.

QUICK SERVICE INITIAL

VNPT Cloud applies Cisco's automation technology on Vmware's virtualization platform, basing on high-speed switched network. After signing the contract, VNPT will initiate the service for customer quickly within 10 minutes.

EASY EXPANDABILITY

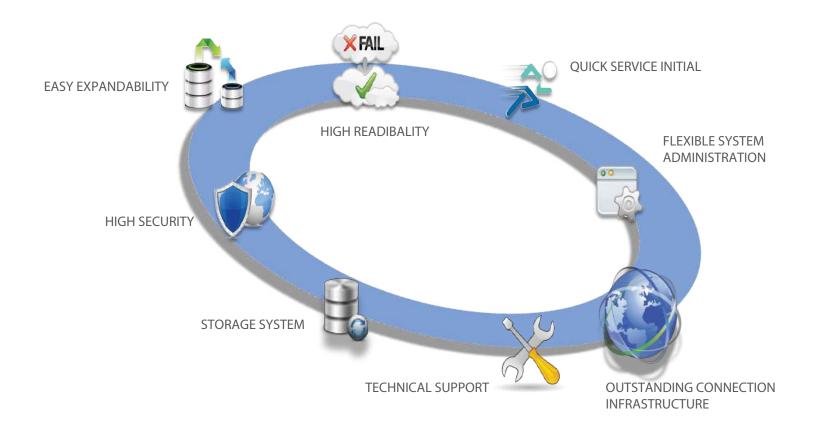
VNPT Cloud is applied with the most modern virtual technologies (such as VMWare, Cencitrix, Openstack, etc.) and put at VNPT's largest DC in Vietnam, which meets standard Tier III.

FLEXIBLE SYSTEM ADMINISTRATION

Users are provided with safe remote access ability through RDP (Remote Desktop Protocol), and access to the portal to monitor the turn-on/off of the system.

AN TOÀN BẢO MẬT TỐI ĐA

VNPT Cloud supports multi-layer confidentiality from physical layer to virtualized layer, using Cisco Systems' security technology: Firewall, Virtual Security Gateway to ensure optimal security of data.











SYSTEM ADVANTAGES

SERVICE ON DEMAND

Resources are provided promptly to enterprises for all what they need. Instead of having to consider whether to expand or invest in servers, enterprises just need to request "Hey, cloud, we need more resources of 1 CPU 3.0 GHz, 128GB RAM, etc." and cloud will automatically search idle resources to provide to enterprises.

REDUCE THE COMPLEXITY IN ENTERPRISE STRUCTURE

It is very costly for a production enterprise to hire an IT expert to operate, maintain a server. Outsourcing this process will help enterprise focus on producing goods and reduce the complexity in the structure.

SAVE CAPITAL COST

Enterprise will have ability of cutting off cost for purchasing, installation and maintenance of resources. It is clearly that instead of assigning an expert to buy, install and maintain a server, now you just do nothing but determine resources you need and make request.

INCREASE THE ABILITY OF USING CALCULATION RESOURCES

One of the most difficult questions on resources investment (e.g. server), like how long is the end of amortization, whether the investment is profitable, or out of date in technologies, etc., when using resources on cloud, you are no longer paying attention to this issue.



1.2.3



!!!!

!!!!







VNPT CDN (Content Delivery Network) is a service that provides network infrastructure, including many storage servers being arranged in different geographical positions, which work together to distribute and transmit content to end users.













O BENEFITS OF THE SOLUTION



OPTIMIZE INVESTMENT COST:

By storing frequently accessed contents in the infrastructure system established by VNPT, VNPT CDN helps providers save investment cost in storage and bandwidth infrastructure.



SMART AND FLEXIBLE LOAD BALANCING:

Server groups in VNPT CDN network are arranged scientifically in different geographical regions to help disperse and navigate inquiries and balance the load of service provision system smartly and flexibly.



INCREASE THE CAPACITY OF TRANSMITTING DATA:

By allowing users to interact with data source in the closest server group, VNPT CDN makes the process of transmitting data take place more quickly and stably.



IMPROVE USER EXPERIENCE:

Your website will serve more concurrent users with higher speed and help website have better ranking, increasing the search effectiveness.



PROTECT COPYRIGHTED DATA:

VNPT CDN is built on the basis of protection of data from thief, downloading and host link, therefore VNPT CDN is capable of protecting copyrighted data in the best manner.





1.2.4

01010

CONFIDENTIAL
APERTURE
SCAN

CONNECTION SOLUTION









1.2.4 CONFIDENTIAL APERTURE SCAN

VScan is a service that scans, warns and detects methods for overcoming confidential apertures. It uses database from IBM to scan outside the Internet, preventing hackers from outside the Internet.



O BENEFITS OF THE SOLUTION

- Detect aperture early.
- Prevent hackers from outside the Internet.
- Minimize risks relating to human.
- Cost is lower for dozen times.
- No manpower for operation.
- A huge set of data on aperture from IBM and other partners in the world.





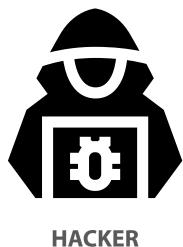






SYSTEM FUNCTION

HACKER'S ACTIVITIES







CKER Sca

Scanning

Customer's system

- Hackers access to the system through the Internet to find SECURITY APERTURE.
- Then they exploit the security aperture to make NETWORK ATTACKS.

VSCAN ACTIVITIES





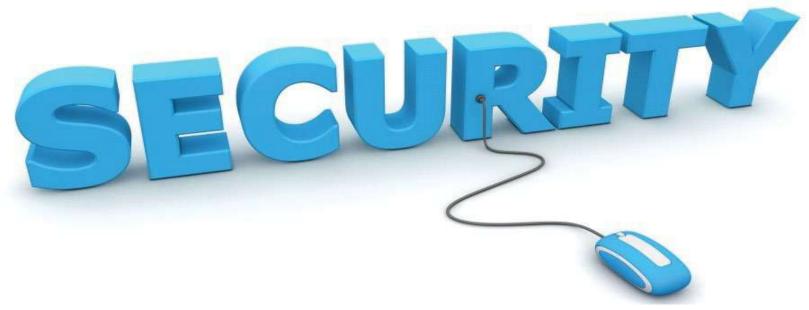


Scanning



Customer's system

- VSCAN finds and consults for customers. MEND SECURITY APERTURE.
- Minimize the risk of getting NETWORK ATTACKS.
- NO impact to the system.







1.1.5





ONLINE

SOLUTION







2.I.I CONFERENCE TELEVISION





VNPT's Conference television provides customers with high-ranking video communication methods among points which need exchanging with each other through voice and images.

This form allows a concurrent connection of hundreds to thousands of different points, with hundreds of people joining the conference at each point.

O BENEFITS OF THE SOLUTION

- Help units hold regular or irregular conferences with any points which are connected.
- Ensure the quality and the continuity, the profession of the conference.
- Use professional solution which has been proved through holding big conferences for the Government, ministries, sectors and local People's Committees.
- Can select many forms of service with flexible cost which is suitable with finance situation of the unit.









SYSTEM FUNCTION



USER MANAGEMENT

Allow managing users/bridge points:

- Allow verifying users participating in the system.
- Maintain connection and notify Online User status.

02

GROUP MANAGEMENT

Allow managing:

• User database, list of members, making groups and members partici pating in the conference.



CONTROL THE CONFERENCE

Allow:

- Managing, supervising and controlling the conference.
- Mixing channels, controlling Mix/Video of bridge points.



RECORD

Allow:

- Searching conference contents.
- Downloading recorded contents.
- Recording contents.
- Keeping video secret and managing it.



DECENTRALIZATION

Allow to summarize statistical reports:

- Manage the policies of users/groups.
- Delaminate system usage.
- Decentralize access limit, user function.



SYSTEM ADMINISTRATION

Allow to manage and set configuration for the system:

• Configure and supervise the whole system.







ONLINE OPERATION SOLUTION





REAL-TIME TRANSMISSION





Lag: Insignificant.



Easy implementation.



Provide the service with HD quality.



Hold meetings, conferences among branches, offices through Television screens, projectors.



Conference television service is an effective and useful tool in teaching and training activities or remote medical support.



Save the cost of traveling, domestic cost, and the premise hiring cost.

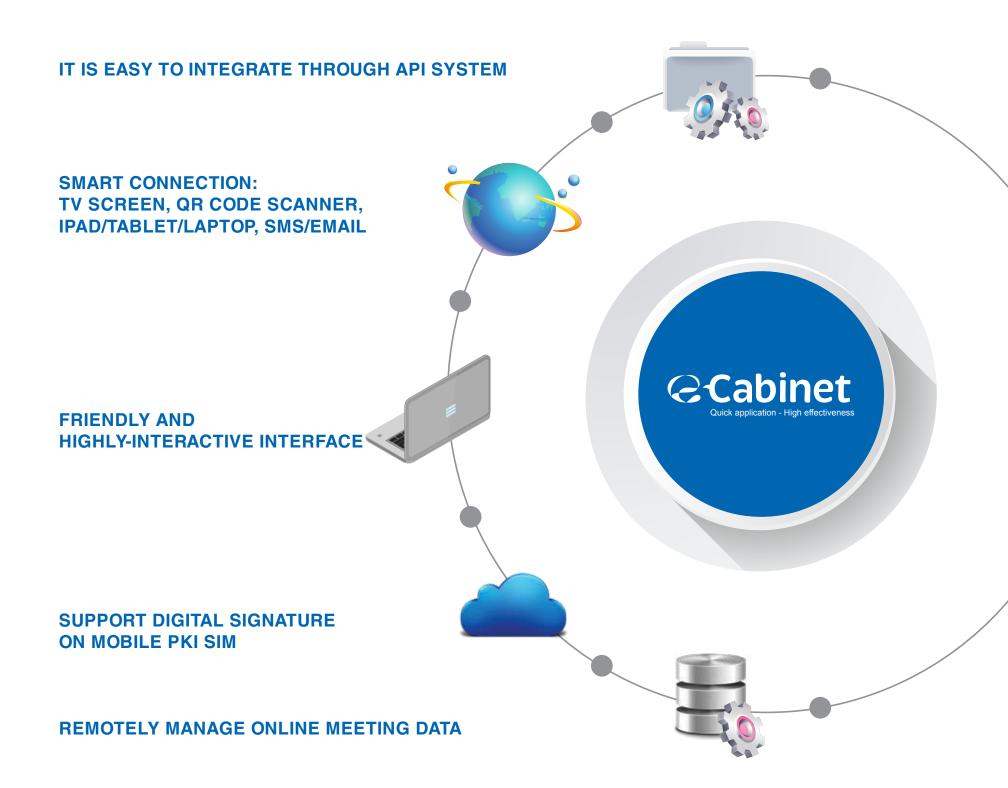




2.1.2 **Cabinet ONLINE OPERATION SOLUTION** VNPT

VNPT-eCabinet is a paperless meeting software built and developed by **VNPT**. Through smart devices with Internet connection, **VNPT eCabinet** "Brings customers with the ability of electronicization of traditional meetings".

Với **VNPT-eCabinet**, it is very easy for delegates to take part in meetings from anywhere at any time. During the meeting, delegates are easy to interact with each other and promptly exchange and share data in multiple forms. **VNPT-eCabinet** brings a website with simple and visual interface that makes users easy to access, use and maximally exploit the utilities brought by **VNPT-eCabinet**.













O BENEFITS OF THE SOLUTION



VNPT-eCabinet system, version 1.0 provides different functions for operation, management and coordination which are integrated in a single system on website interface, which is simple and easy to use. Just with a computer, all members of an unit/organization/enterprise can use it every where at any time.

In addition to e-meeting functions, this paperless meeting software creates an environment of multidimensional and prompt interaction that helps people share information, exchange and give feedback easily; thanks to that, all problems are resolved quickly, transparently and effectively.

02

03

Units/organizations/enterprises just pay once for the product and for training, with one low-configured server they can still take use of huge benefits from the system in document management and operation.

With small units/organizations/enterprises, the paperless meeting software provides professional hosting solutions from leading service providers. Thanks to that, enterprises are not required to invest in facilities and equipment as well as human resources for operating the system while they still take use of professional operation, management and can exploit information at any time from anywhere.

04

05

In addition to the main functions of the paperless meeting software, customers can require for adding more functional modules to fit with their organizations/enterprises.

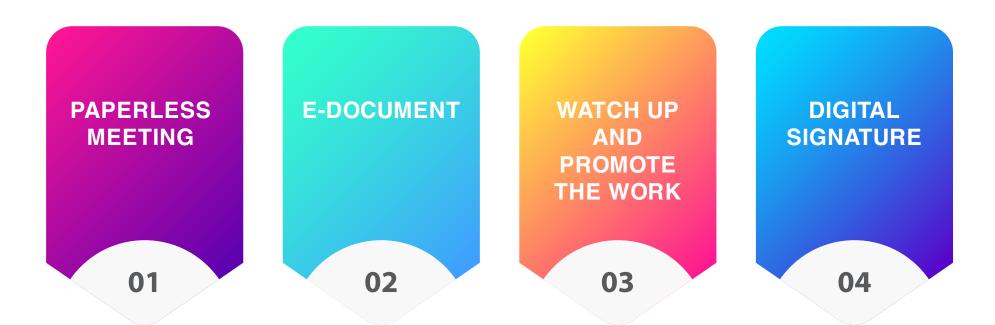


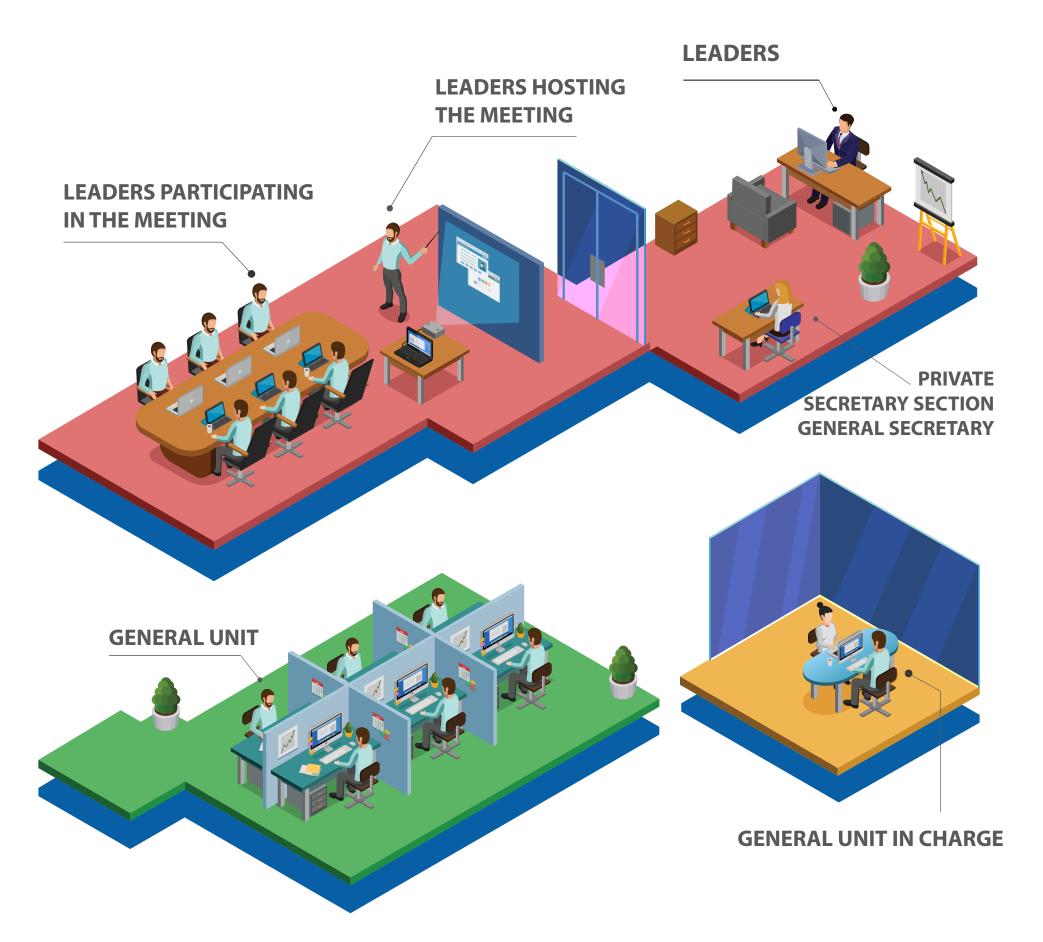






• SYSTEM FUNCTION







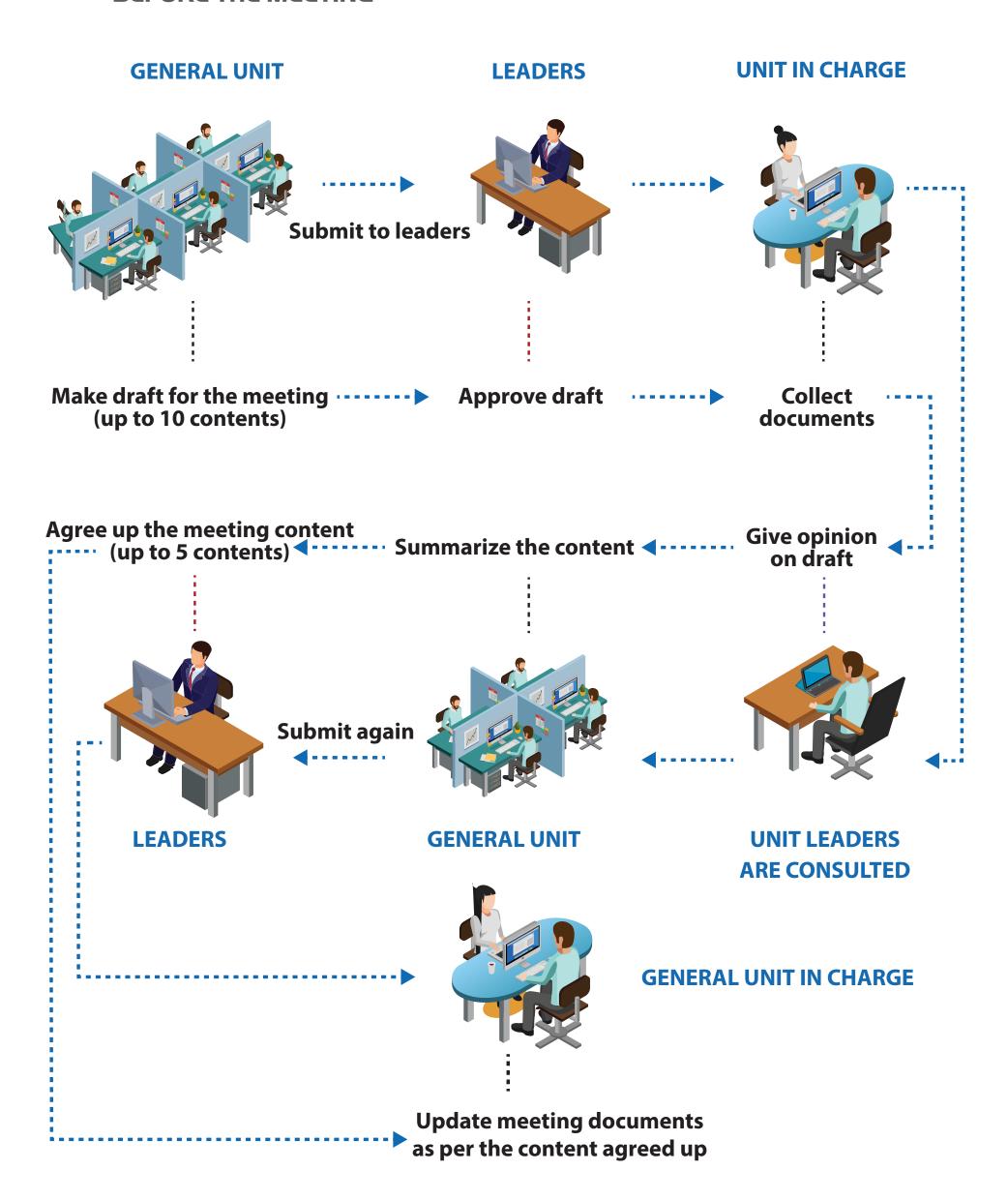






O PAPERLESS MEETING

BEFORE THE MEETING





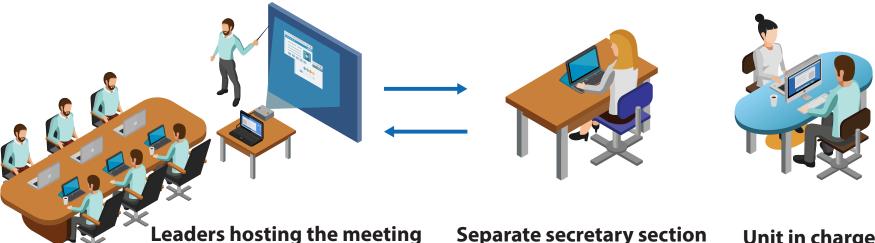




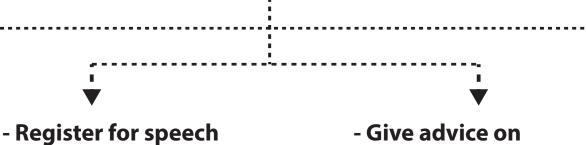


PAPERLESS MEETING

DURING THE MEETING



eaders hosting the meeting Leaders participating in the meeting **General secretary** **Unit in charge**



- Write downthe meeting document - Write down the meeting content - Give advice on
- Deliver a speech
- Vote
- View meeting document
- ► Mark the content
 - Prepare content for the speech
- law, policy projects
- Arrange and manage the meeting
- Monitor members present at the meeting or not

AFTER THE MEETING



Assign, monitor the implementation of responsibility> as per the meeting conclusion.



Section of general affairs, secretary

Leaders participating in the meeting **Update the conclusion**

:.....▶ Check up, monitor the conclusions of previous meetings

Summarize speech content of leaders

of the meeting





2.1.3

EMAIL

ONLINE
OPERATION
SOLUTION







Email is a service providing a system for sending and receiving emails by domain dedicated to enterprises/organizations from dozens to thousands of emails. This service supports all protocols with the lowest price and pure Vietnamese that aims at bringing customers with the professional manner when participating in transactions.











O BENEFITS OF THE SOLUTION

HIGH PROFESSION IN COMMUNICATION

Company/Organization/Association will have a consistent E-mail system with a standard form for all employees: tennhanvien@tenmiencongty.com.vn

MANAGE STAFFS EMAIL CONVENIENTLY AND EASILY

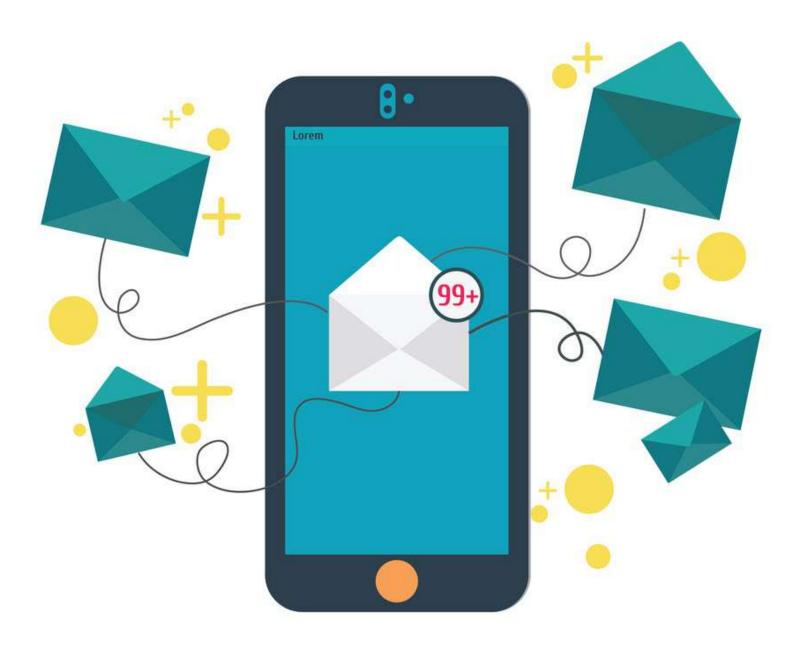
Provide free tools that allow automatically adding/eliminating email addresses in the Company without the interference of the provider.

STABLE AND COMPLETELY SECURED

With advanced devices on leading Internet infrastructure platform, the email system is always maintained in the highest level of stability and security.

PROVIDE DIVERSIFIED EMAIL FUNCTIONS

Enterprise email supports all protocols for email like POP, SMTP, IMAP, Webmail together with other functions like anti-spam, dedicated SMTP, account administration, data backup, etc., provided by VNPT.











WORK
MANAGEMENT
SOLUTION









VNPT-iOffice lis an application for information exchange, operation and management of all administration activities of an unit, in which processing and supervising document processing plays an important role.

The functions of this application are built in order to support management and operation of an agency, unit, organization and enterprise.









BENEFITS OF THE SOLUTION

OFFICE

- Manage internal information effectively.
- Exchange data and share information easily.
- Save time, human resources, cost for printing, making photo, traveling around, sending document manually.
- Improve interactions among individuals, divisions.

LEADERS

- Give directions and manage work at any place.
- Manage assigned works clearly and transparently.
- Seize full information to make correct decisions.
- Look up, process documents on smart phone, ipad, etc.

EXPERTS

- Manage, look up, search documents relating to the current work easily.
- Quickly seize the work assigned by leaders.
- · Report punctually.
- Create the environment for exchanging, negotiating and improving efficiency.
- Easy to arrange personal schedule, etc...

FILING WORK

- Distribute documents simply without making photo, printing, traveling around.
- Manage and search information easily.
- Search original documents quickly.
- Transmit notices, instructions of leaders to divisions quickly and punctually.











• SYSTEM FUNCTION







2.3.1

VNPT HRM

ENTERPRISE ADMINISTRATION SOLUTION







2.3.I HR MANAGEMENT





VNPT HRM (HR management software) is built under the centralized model in order to maximally meet the need of profession exploitation relating to HR management in convenient, quick and accurate manner under the model of Corporation, Group, supporting in making accurate decisions on personnel organization activities.

All HR management information such as recruitment, HR record updating, or activities relating management, policies for laborers, etc., in the Group take place in one unique software - HRM.

HR professions are all processed in the system simply and quickly that helps save time of HR management division with high level of accuracy and updating.













O BENEFITS OF THE SOLUTION





CENTRALIZED HR RECORD MANAGEMENT

In addition to detail information in record, personal profile, detail information of staff in the whole process of working at enterprise is stored and managed easily.

MANAGE SI, HI, UI IN ACCORDANCE WITH STATE REGULATIONS

Manage record and process of participating in SI, HI and UI. Monitor the history of increase or decrease as well as the ratio of insurance payment. Making insurance settlement easily. 02









0

SUPPORT COMPLICATED PROCESS OF TIME AND ATTENDANCE TRACKING

No limit of shift numbers, taking data on time and attendance by different methods, managing the number of day-offs in the year, method of summarizing monthly payroll in accordance with regulations of each enterprise.

CALCULATE SALARY IN YOUR OWN WAY

Can apply different methods of salary calculation in one unit. A salary structure may include different factors, depending on each enterprise.

04













ENTERPRISE ADMINISTRATION SOLUTION











VNPT-Tracking service is a solution for online vehicle tracking, which is provided by VNPT. When using the service, enterprises operating in transportation, private vehicles, works vehicles can manage, track and assess their vehicles and driving process of drivers through exploiting functions and utilities of the product in the most simple and effective manner.

At a time, the coordinates of a point on the earth will be determined if the distance from such point to at least three satellites is determined. GPS satellites fly around the earth twice per day in a very accurate orbit and transmit signals with information to the earth.

GPS receivers receive this information and calculate the accurate positions of users by using trigonometrical operation. Basically, GPS receivers compare the time the signals are transmitted from satellites with the time of receiving them.





ENTERPRISE ADMINISTRATION SOLUTION





O BENEFITS OF THE SOLUTION

- Track the route of vehicles in real time: velocity, direction of moving and on/off status of machine, exceeding speed of vehicle, etc.
- Identify exact location of vehicle (this location is blinking on the map); identify the speed and the running/stopping status of vehicle; know the route of vehicle (in real time).
- Store the route of each vehicle and re-display the route of every vehicle on the same screen.
- Review the route of vehicle by time and speed.
- Manage and track one or multiple vehicles at the same time.
- Report on fee and total number of km of each vehicle (date/month).
- Give warning when vehicle exceeds the limit speed and passes the restricted area.
- Theft-proof functions.
- Supervise the fuel consuming level.











SYSTEM FUNCTION



TRANSPORTATION BY CARS

- Bus, tourism vehicles, passenger vehicles.
- Goods vehicles (truck, containers, tractors, semi-trailers, etc).
- Taxi.



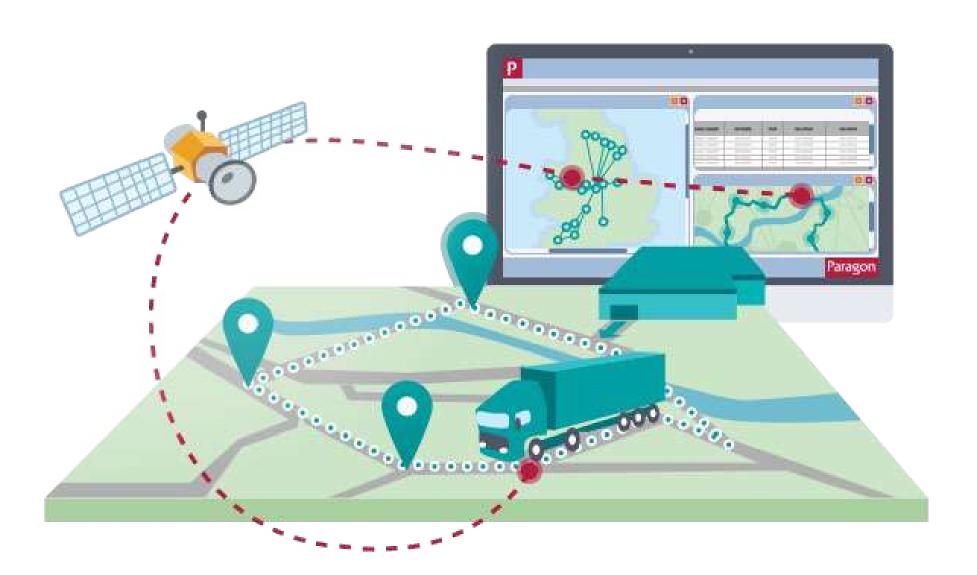
CARS NOT RUNNING TRANSPORTATION BUSINESS

- Specialized cars.
- Construction work cars.
- Self-driving/private cars.



OTHER TYPES OF VEHICLES

- Domestic ships.
- Ships in bay.
- Motorbikes.







2.4.1

MYENGLISH

ONLINE ENGLISH TRAINING SOLUTION







MyEnglish is a service for training English online through Internet. The service allows learners who are individuals, schools, enterprises, organizations, etc., to learn English through videos with Watching, Learning, Speaking skills and GoLive 1-1 with foreign teachers.



(Now present in 120 countries in the world with over two billion users)









PLATFORM OVERVIEW

- 160 courses with three levels of Basic, Intermediate and Advanced, with diversified topics.
- Video on real situations.
- Intelligent voice recognition technology IntelliSpeech.
- Two-direction interaction method and prompt feedback.
- Individualize the learning, content, vocabulary.
- The learning process will be monitored, calculated and accumulated with points.
- Direct learning 1:1 with foreign teachers.
- LMS helps manage, monitor and assess the learning process of learners based on the objectives and road map of learning set for each class by each teacher.









O BENEFITS OF THE SOLUTION



FOR ENTERPRISES

- Save a lot of expenses for traveling, accommodation, training organization.
- LMS system helps monitor the learning process, from which to care and remind learners of learning to get high efficiency.
- Help reduce over 50% of learning time for training courses. This means that employees will have more time for working at companies.
- The price is competitive with opponents in the same field.

FOR SCHOOLS



- The subject of activities and provide educational training programs for learners.
- Create for learners with different courses with new knowledge that is not provided at schools.
- Increase the adaptability level of schools to the industrial revolution 4.0.
- Expand the education scale of schools.
- Have chances of testing courses.



FOR LEARNERS

- Can learn from anywhere, while traveling on buses, airplanes, while waiting for something as long as the Internet connection is available. Learners are active on their learning time.
- Can learn with personal progress. Each individual has their own schedule for learning and working, not every people can arrange time to learn a fixed program.
- Learning contents are built at little duration and divided into different majors, courses so that it is easy to search for and learners can use the lesson for many times on demand.
- When learning at centers or in front of the crowd, people are often afraid of being wrong in speaking. Online courses of MyEnglish will help over come this factor.
- Learners can interact with each other, as well as exchange with teachers without limitations in geography.
- Save the cost of traveling, document printing because everything has been ready in the course. All you need to do is to have a device that can connect to Internet and a stable network line.





ONLINE ENGLISH TRAINING SOLUTION





SYSTEM FUNCTION

LEARNING METHOD

4-STEP LEARNING

- Watching: Data store with over 10,000 videos for different fields.
- Learning: Checking and learning vocabulary directly while watching videos.
- **Speaking:** Recording and comparing with the voice in videos and correct the pronun ciation errors.
- **Golive:** Direct learning 1:1 with native teachers.

QUALIFICATION ESTABLISHMENT

• **MyEnglish** provides over 10,000 videos and over 160 courses of English with 7 levels as per European reference frame.

COURSE

- Class page.
- Reports monitoring.
- Types of reports.



LMS SYSTEM

- Partners are granted with private management accounts to create classes to manage learning process of learners.
- Coordinate with specialized teachers or training management officers to provide ob jectives of learning, lessons and courses for learners.
- Learning results of learners are updated continuously and can be extracted to excel files for reporting and evaluation as necessary.



















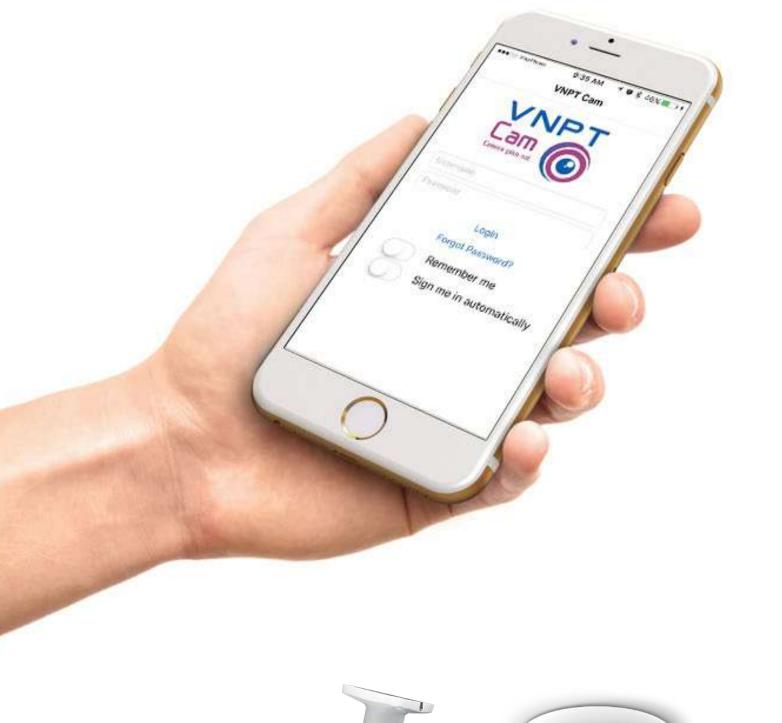
2.5.I SUPERVISION CAMERA





VNPT Cam is the most recent version of remote camera tracking service that is the outstanding solution for replacing former solutions using video recorders.

Users can manage and control the tracking system right at the camera location or from a location which is in thousands of kilometers far away through Internet with lively images.













O BENEFITS OF THE SOLUTION

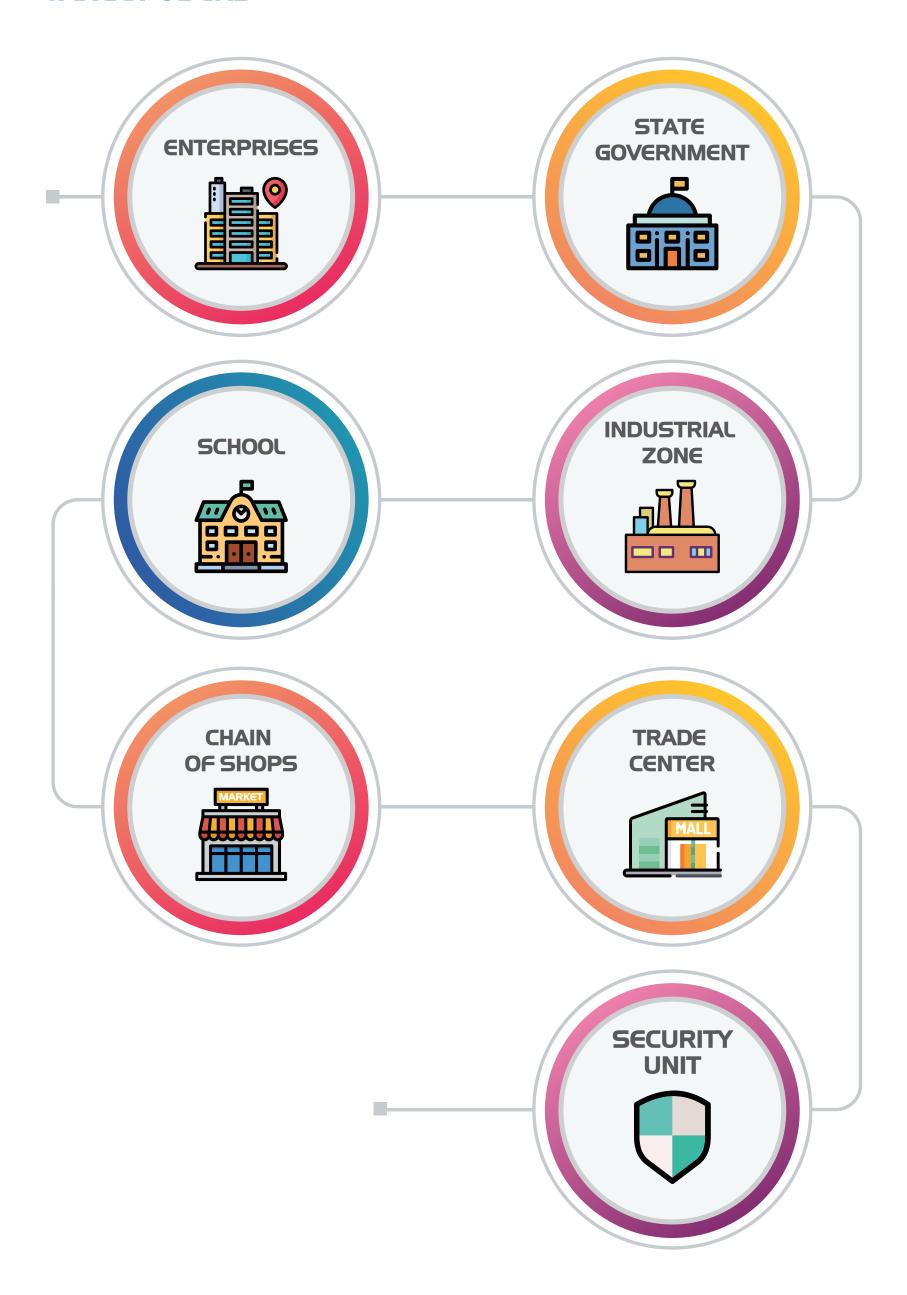
- Simple usage: customers just need to have an IP Camera, register the service in order to use full functions of remote monitoring camera solution.
- Maximum storage capacity: in technical terms, clips are stored without limitations.
- Remote warning: remote warning via email, via software installed on mobile phone, etc.
- Suitable: through the account granted, customer can log in and monitor and supervise from anywhere and any device with Internet connection.
- No limitation in quantity of concurrent access to camera.
- Minimize investment cost.







• TARGET USERS







2.6.1



CENTRALIZED
DIGITAL
SIGNATURE
SOLUTION







VNPT-CA is VNPT's digital signature service (public digital signature certification) in order to help organizations/enterprises and individuals in organizations/enterprises use to certify for transactions that accept digital signature nature.



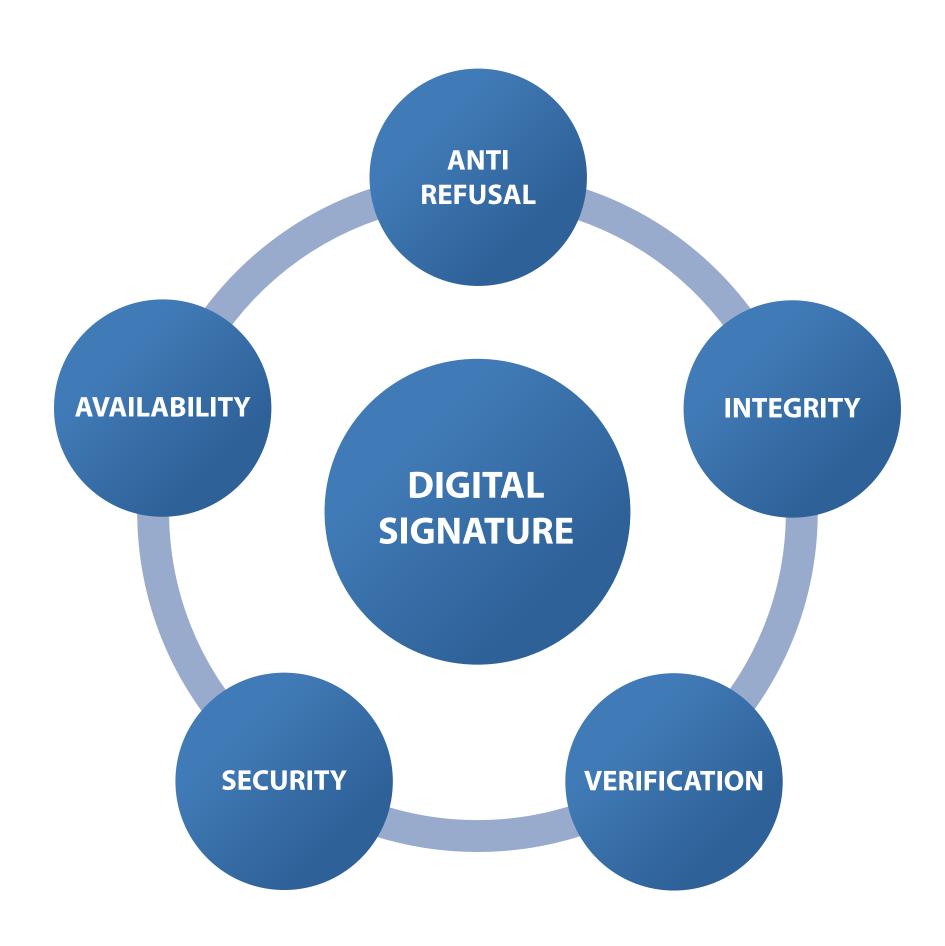








- Use to sign and verify for taxation declaration and payment; e-Customs declaration; SI declaration, etc.
- Use to sign e-Invoice.
- Use to sign internal transactions: Operation documents, order confirmation, patient's record verification, etc.
- Use for other transactions of Enterprises providing services, Banking and financial organizations providing services that require certification using digital signature.







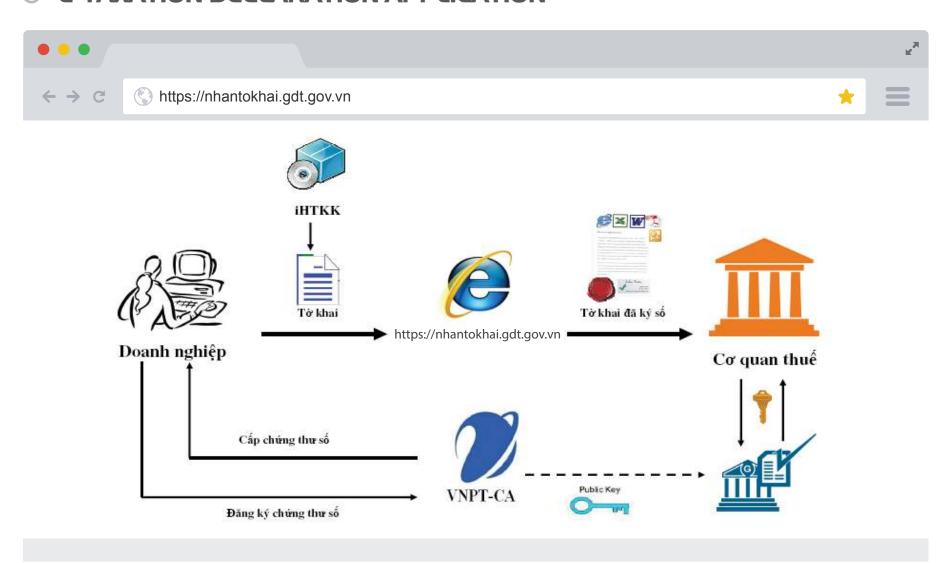




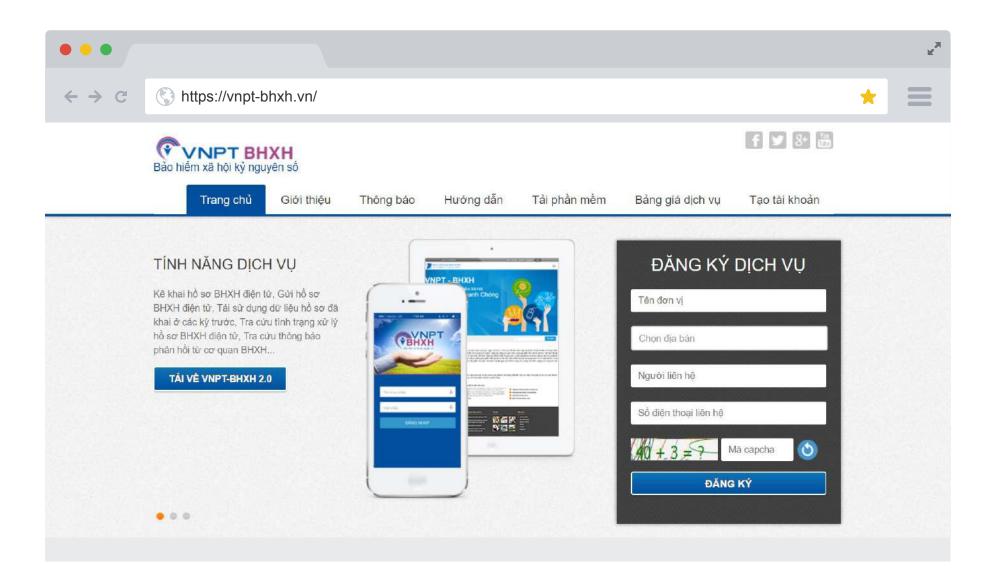


SYSTEM FUNCTION

© E-TAXATION DECLARATION APPLICATION



SOCIAL INSURANCE DECLARATION APPLICATION



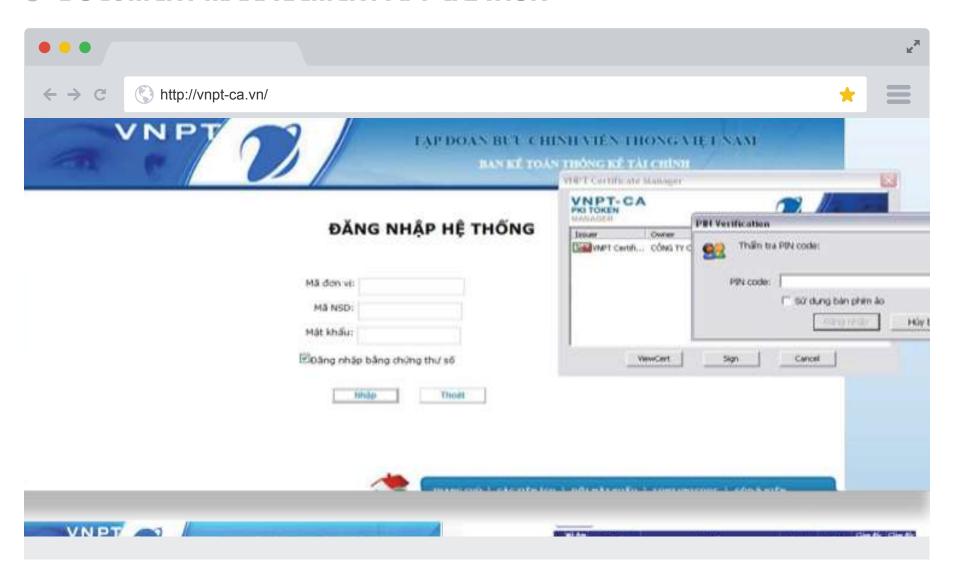




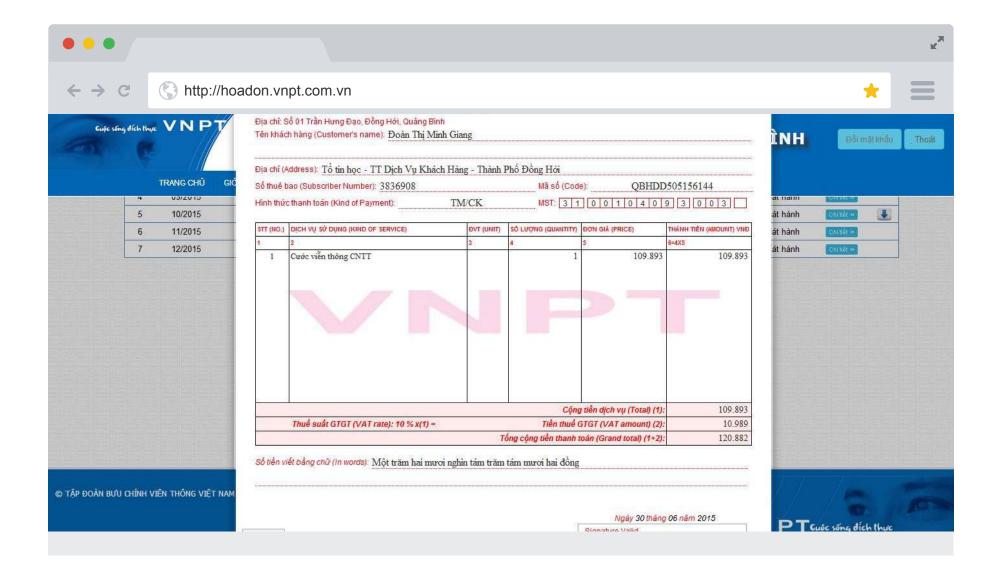




DOCUMENT MANAGEMENT APPLICATION



E-INVOICE APPLICATION





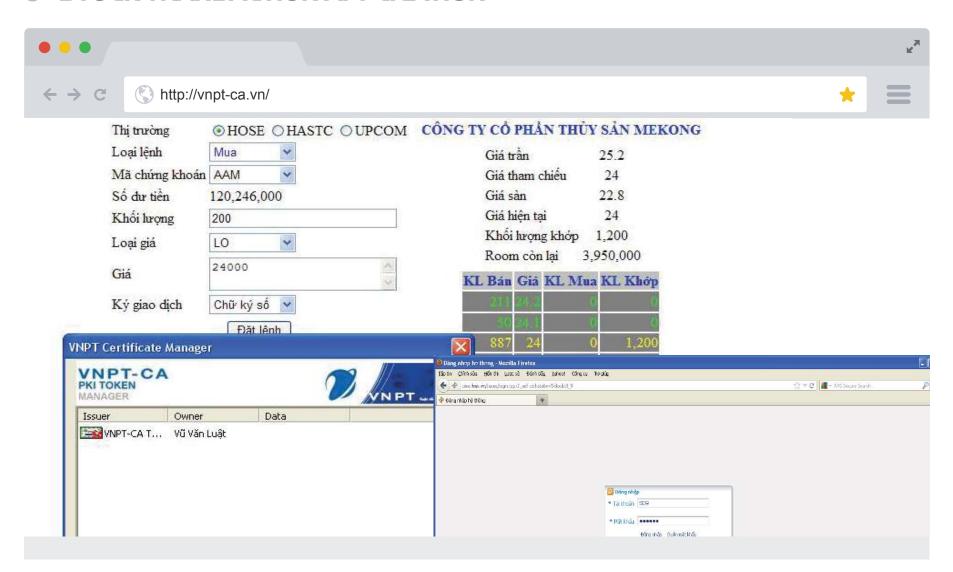








STOCK TRANSACTION APPLICATION



• E-BANKING APPLICATION







2.6.2

VNPT
DIGITAL
SIGNATURE

CENTRALIZED
DIGITAL
SIGNATURE
SOLUTION









2.6.2 VNPT DIGITAL SIGNATURE





VNPT Digital Signature is a service for user certification and centralized digital signature. Support customers in registering and managing centralized personal digital signature (stored in HSM at VNPT).

Combine Mobile PKI solution to support customers in managing and implementing digital signature in SIM card.

Integrate digital signature and application systems simply and quickly through API Gateway service portal.

Include advanced utilities such as transferring signed data to partners safely, which is applied in signing electronic contract.





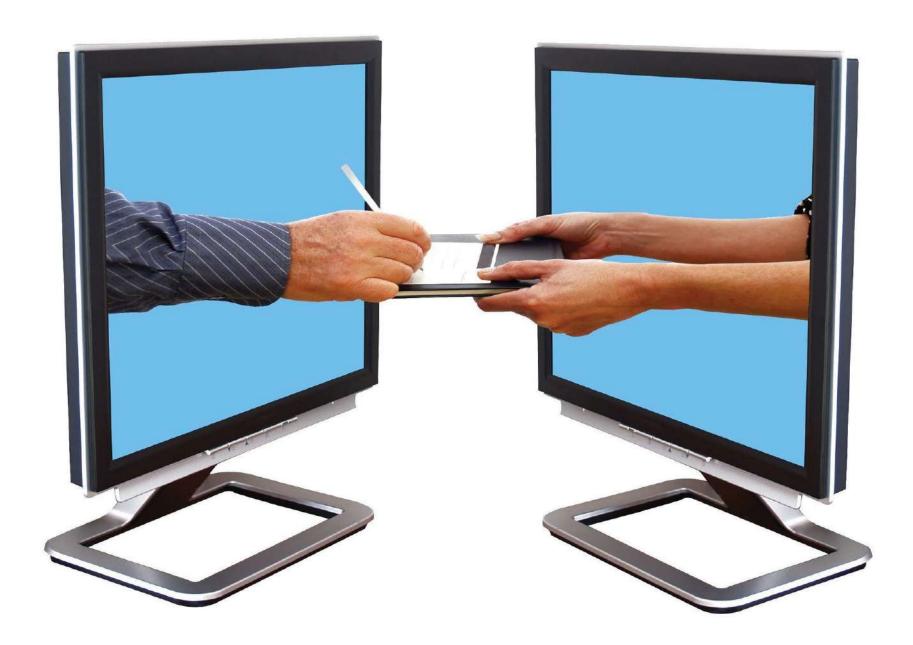








- Verify application and user via OAuth2 framework.
- No USB Token, Smart Card.
- No additional software.
- It's easy to integrate to Restfull API.
- Manage digital signature simply.
- Make transactions easily via Web interface.
- Easily transfer data to partners for signing and confirming.
- Support many popular formats (PDF, Office, txt, xml, etc.)
- PDF data signature with advanced options (locations, images, etc.)
- Connect safely through two-direction SSL.







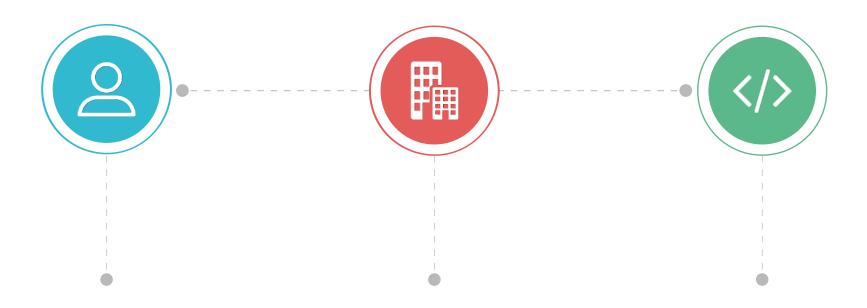
CENTRALIZED DIGITAL SIGNATURE SOLUTION





• TARGET USERS

- The system classifies customers with different layers for easy management.
- Individual customers have need in digital signature of dependent individuals (staff, agents) can upgrade to enterprise account.
- Enterprise customers have advanced function for managing dependent individuals, adding accounts, etc.
- When enterprise providing value-added services requires digital signature, it can register to become the Developer in SignService system to use services of cloud CA through API Gateway.



INDIVIDUALS

- Manage digital signature.
- Digitally sign.
- Digitally sign by batch.
- Transfer to partners.
- Check signature.

ENTERPRISES

- Manage members.
- Create individual customer account.
- Share the package.

DEVELOPERS

- Manage the application.
- Use API.





2.7.1

SIP TRUNKING

CUSTOMER
CARE
SOLUTION









2.7.I SIP TRUNKING

4



As a trunk line service running SIP protocol (Session Initiation Protocol, SIP), it is provided across all provinces and cities for business customers.

It facilitates the connection of extensions to the Internet, replaces traditional telephone lines and allow users to communicate with landline and mobile subscription worldwide











GENERAL SOLUTION FOR ENTERPRISES

- · Call quality is high and security is much better than conventional services.
- The number of concurrent calls is unlimited, and allows easy expansion with only one signal available.
- Ability to receive multiple calls at the same time without losing call quality.

UNIQUE HOTLINE NUMBERS FOR ENTERPRISES NATIONWIDE

- It helps enterprise use a common number to take care of customers.
- No change of number when moving office.
- Cost savings: no investment in equipment and no need to spread multiple lines.

CONDITIONS OF USE

CUSTOMERS HAVE IP BPX PBX EXCHANGE

- There is Internet or Megawan line.
- There are terminals such as IP landline phones, mobile phones ...

CUSTOMERS DO NOT HAVE AN EXCHANGE

- There is Internet or Megawan line.
- There is a virtual switchboard.
- There are terminals such as IP landline phones, mobile phones, computers ...









SYSTEM FUNCTION



SOLUTIONS TO CONNECT THE EXCHANGE FOR ENTERPRISES

- Set up simultaneous calls, calls transfer.
- Allow to expand the number of intranet subscribers and the total number of concurrent calls.
- Call quality is stable.



UNIQUE HOTLINE NUMBER FOR ENTERPRISES NATIONWIDE

- Maintain the number when moving and expanding the office.
- Use common numbers for Enterprises' incoming and out-coming calls.



CONTENT ADMINISTRATION

COMPILE, UPLOAD CONTENT TO THE SYSTEM:

- Media content: support standards ò Video, Image content.
- Message content: content in the footnote.



PLAYLIST ADMINISTRATION

MANAGE PLAYLIST IN THE SYSTEM:

- Edit, initiate information of Playlist.
- Add Media content to Playlist.
- Customize time, playing style, Media content standards.





2.7.2 **1800** CUSTOMER CARE SOLUTION **VNPT**



1800 service is a service that enables customers to make free calls to Organizations and Enterprises through one unique hotline number.

Fee is charged with subscribers who register **1800** service. Therefore, callers will not be charged.

CLASSIFY BY TYPES OF SERVICE SHORT CODE:

- Service short code 18001xxx
- Service short code 18005xxxxx

CLASSIFY BY DESTINATION OF ROUTING SERVICE CAPACITY:

- Route to destination number PSTN (E1/CO line).
- Route to server of customer's gateway (IP IMS).













PROPERTIES

BENEFITS

Provide an unique service short code 1800 nationwide.

Customers are not required to remember phone number by area but only remember the number 1800.

Route to destination numbers which are fixed numbers, maximum to 10 numbers.

Customers can use different destination numbers for different areas in convenient manner.

Can route by calling time or by regions.

Customers are flexible to use destination numbers.













SYSTEM FUNCTION

UNIQUE SHORT CODE

• Units/companies are provided with short code 1800 xxxx, which is easy to remember, professional for customer care service.

2

SIMPLE PROCEDURE

- Units prepare content like Business Registration Certificate, service registration form, commitments in accordance with legal regulations.
- Quick implementation.

3

FLEXIBLE

Flexible in routing the call:

- Route fixed number.
 Route to IP.
- Route to server.
 Routing by region and time.

4

MỨC CƯỚC PHÙ HỢP

- Fee for calling from fixed number: 600 Vnd/Min.
- Fee for calling from mobile number: 1,000 Vnd/Min. (lower than normal fee helps enterprise save cost)

5

FEE EXEMPTION

Callers are not charged for calling.

6

SIMPLE MANAGEMENT

 Instead of managing from different short codes or regions, now units just need to manage one unique and easy-to-remember short code.

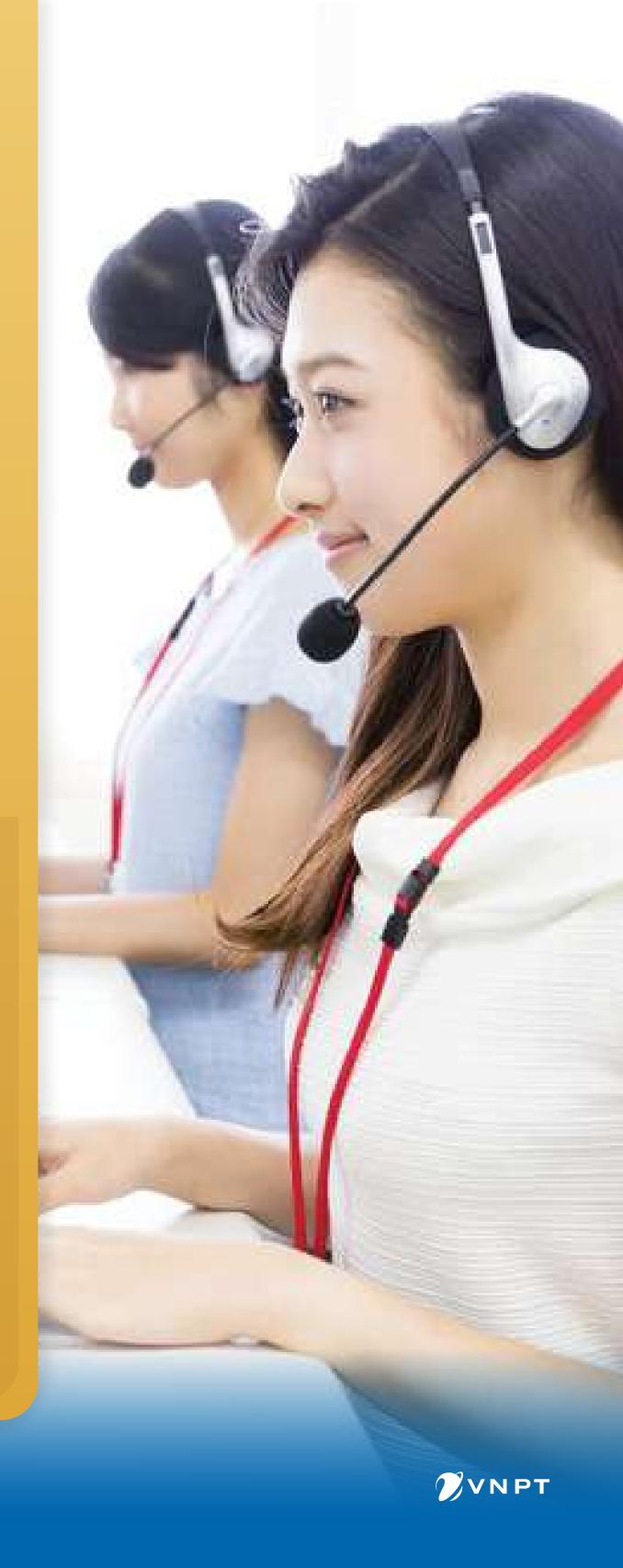




2.7.3

1900

CUSTOMER CARE SOLUTION









1900 service is a service that enables customers to make calls to Organizations and Enterprises through one unique hotline number.

Suitable for consultancy Enterprises and organizations or commercial/entertainment programs.

CLASSIFY BY TYPES OF SERVICE SHORT CODE:

- Service short code 19001xxx
- Service short code 19005xxxxx

CLASSIFY BY DESTINATION OF ROUTING SERVICE CAPACITY:

- Route to destination number PSTN (E1/CO line).
- Route to server of customer's gateway (IP IMS).











PROPERTIES

BENEFITS

Provide an unique service short code 1900 nationwide.

Customers are not required to remember phone number by area but only remember the number 1900.

Route to destination numbers which are VNPT's fixed numbers.

Customers are flexible and convenient to use service destination numbers.

Route to maximum 10 destination numbers.

It's convenient to use different destination numbers.

Can route by calling time or by regions.

It is convenient for customers who have many branches and arrange the time of receiving and processing.













• SYSTEM FUNCTION

UNIQUE SHORT CODE

• Units/companies are provided with short code 1900 xxxx, which is easy to remember, professional for customer care service.

2

SIMPLE PROCEDURE

- Units prepare content like Business Registration Certificate, service registration form, commitments in accordance with legal regulations.
- Quick implementation.

3

FLEXIBLE

Flexible in routing the call:

- Route fixed number. Route to IP.
- Route to server.
 Routing by region and time.

4

SUITABLE RATE

• There are 11 rate levels from 1,000 Vnd/minute to 15,000 Vnd/minute for customers to select in order to fit the content provided by customers.

5

DISCOUNTED FOR CPs

• Receive monthly revenue from VNPT, depending on each short code that customers use.

6

SIMPLE MANAGEMENT

 Instead of managing from different short codes or regions, now units just need to manage one unique and easy-to-remember short code.





2.7.4



CUSTOMER CARE SOLUTION







2.7.4 VNPT CLOUD CONTACT CENTER





VNPT CLOUD CONTACT CENTER (VCC) is the gateway service that VNPT provides on WebRTC platform of Google with Fragos GateWay solution that meets huge number of concurrent calls.

On the other hand, VCC helps enterprise communicate with customers through different channels like: Live Chat, Facebook, Email with data managed on MiniCRM of the system (Built-in multi-channel).















01

COST SAVING

- Require no cost of investment, maintenance, and oper ation of the system.
- Save fee up to 40% for making outgoing calls in comparison with using fixed numbers.

CAN BE USED AT ANY TIME AND ANY WHERE

- Can be used via Internet/3G/4G/Wifi to ensure continuous connection.
- No limitation of calls and no influence from the policy of changing regional code of fixed line, no influence from the planning that prohibits making outgoing calls from short codes 1900, 1800.
- Compatible with all terminals: Traditional fixed phone, iPhone, Softphone, mobile phones











03

CONTROL THE WHOLE COMMUNICATION ACTIVITIES

 Customer care of enterprise and staff in all voice chan nels, sms, email, livechat, facebook in both inbound and outbound directions.









FORM OF USE

TELESALES

 Bank, insurance, finance, education and organizations/enterprises searching customers, selling goods and customer care via telephone.

MEDIA, EVENTS HOLDING

 Media companies, consultancy on abroad study, training center, holding events, conferences.

REMIND OF PAYMENT, DEBT CONVERSION

 Bank, Taxation Department, Depart ments of Labor – Invalids and Social Affairs, etc.

UP-SELL/CROSS-SELL

• High-class fashion companies, finance management, etc.

MARKET RESEARCH

 Market study companies which need outsource; companies which have the need of expanding market and need market study via telephone.

CONSULTANCY, CUSTOMER CARE 24/7

 Companies selling consumer goods, services, etc.

BOOK TICKETS, ORDER PLACE

• Enterprises transporting passen gers, airway, taxi, tourism.

REMOTE TECHNICAL SUPPORT

ICT companies







2.7.5



CUSTOMER CARE SOLUTION











SMS Brandname is a service for brandname sms, including: SMS Advertisement & SMS Customer Care.

SMS BRANDNAME IS A PACKAGE THAT INCLUDES TWO SERVICES:

ADVERTISEMENT SMS

SMS sent to VinaPhone subscribers to introduce on organizations, individuals, social activities, goods, services including profitable and non-profitable purposes.

Advertisement SMS content includes information on commercial promotion, including:

- Information on production of new products and services;
- Information on sales, promotion of products and services;
- · Information on voting and prize winning;
- Other advertisement information.

CUSTOMER CARE SMS

These are messages from organizations/enterprises which use mobile information channel to send customer care information to mobile subscribers who are their customers.

Customer care SMS content:

- Information from electric company, fresh water companies;
- Information on Health, education;
- Information on finance, banking, securities, insurance, etc.;
- Internal, operation information;
- Other information.













PROPERTIES

BENEFITS

Send SMS with Brandname of enterprise or brandname of products.

Increase feedback ability of customers due to the higher reliability.

Fast speed and proactive in transmitting information.

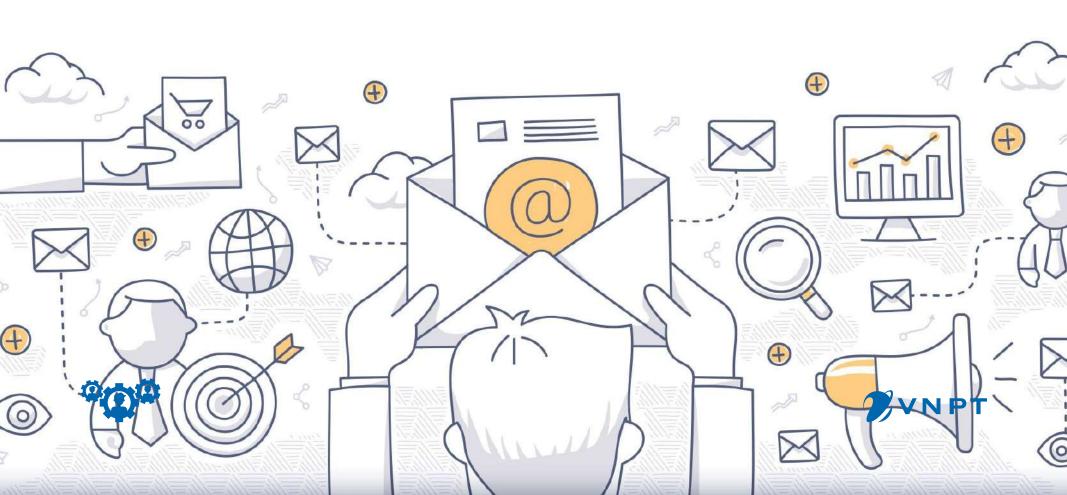
Quickly notify products/services and programs of the unit.

Extreme confidentiality.

Keep information safe for enterprise.

Operation SMS group for People's Committee, Departments and Sectors with preferential price.

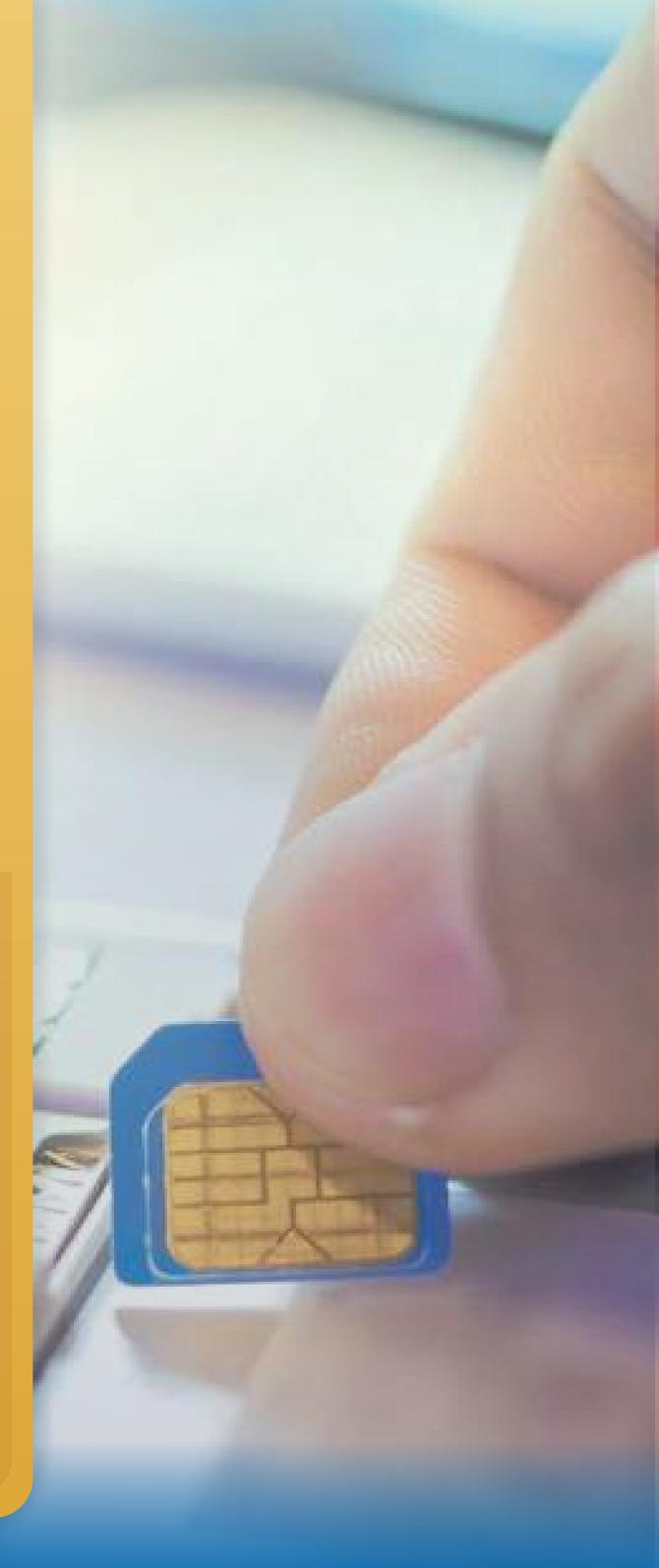
Help state organizations operate activities and implement social programs.



2.7.6

DATA CODE

CUSTOMER CARE SOLUTION











DATACODE is a data package used for prepaid and postpaid VinaPhone subscribers who register or not register other Mobile Internet (MI) packages (excluding TB ezcom).

- It allows users to easily upload data package quickly via a simple messaging syntax.
- Form of package supply: datacode card code.
- "Datacode card code" is the secret number issued by the provider corresponding to the par value and package.
- The Datacode card code will be issued in form of a data file with a security code or as a voucher.
- The Datacode card code is only valid for use corresponding to a data limit for accessing the Internet.
- Subscribers who upload packages will use data at high speed.











EASILY UPLOADING DATA PACKAGE, WITHOUT DISTINGUISHING PREPAID, POSTPAID SUBSCRIBERS, WITH OR WITHOUT PACKAGE

Subscribers compose syntax messages to register packages: DK [PACKAGE NAME] [MACODE] sent to 1558.

EASILY DISTRIBUTING ON SALE CHANNELS

Enterprises can trade on distribution channels in the form of card codes or hard cards.

EASY FOR GIVING / DONATING / PRESENTING

Enterprises can use datacode as gratitude gift items to present their customers







2.7.7



CUSTOMER CARE SOLUTION





Joint point accumulation card is a card used jointly for all stores/enterprises in the card community. With an unique card account, customers can receive bonus points from thousands of different trademarks in the associated community and use points to make payment equivalently to cash.

The model of Joint point accumulation card has been applied very successfully in developed countries like Japan (T-point of TSUTAYA, Rpoint of Rakuten), Korea (Lpoint of LOTTE), etc. The community of joint point accumulation cards includes a lot of enterprises in all fields of life who connect with each other to implement customer care based on the basis of joint point accumulation system.



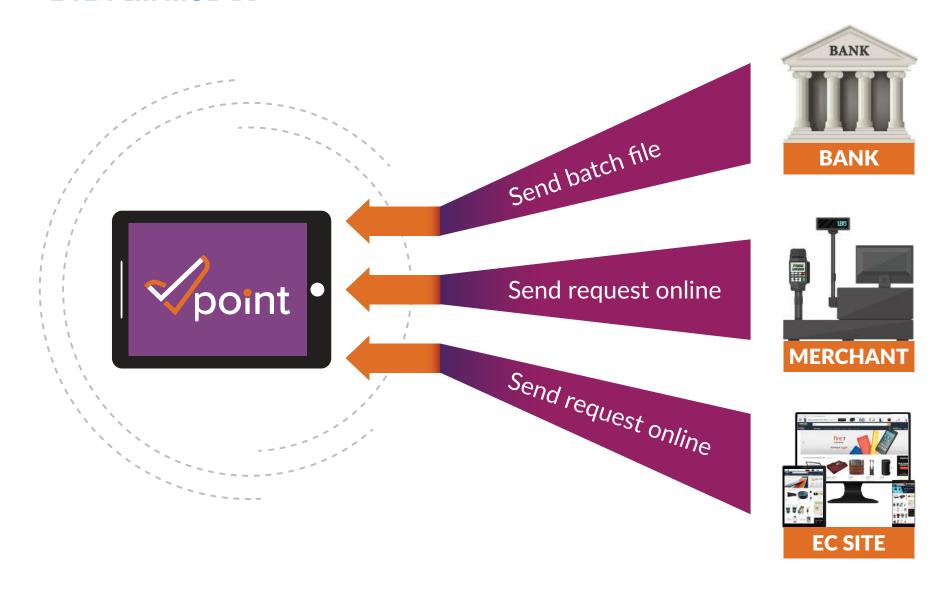








SYSTEM MODEL



ENTERPRISES MANAGEMENT PAGE

(MMS – Merchant Management System)



- Merchants actively plus/minus points for customers without POS.
- 4-layer management allows the flexibility in setting point accumulation program and effectively managing campaigns as per layers.
- Easily manage abnormal transactions.
- Give detail statistics on sale history.

MANAGEMENT PAGE OF USERS

(Official My page/Website of Vpoint: v-point.vn)

- Accumulate/spend points instead of physical cards.
- Update all preferences of Vpoint store system.
- Check information on point transaction.
- Give points to friends and relatives.
- Give detail statistics on history of points transaction..
- Search for the nearest stores by fields.















Exploit the advantages of VNPT in customer basis, technology infrastructure.



Attract new customers from hundreds of associated enterprises in the card community.



Keep customers coming back to use preference due to the "liquidity" and the flexibility in accumulating and spending points in the community.



Resonate the advantage of marketing media from VinaPhone together with other enterprises in the ecosystem.



Minimize expenses for customer care via point accumulation cards.



Analyze Big Data: Information on demography, user behavior, frequency of shopping at stores, etc.





2.8.1

VNPT CONTROLL Smart Ads

ADVERTISEMENT
SALE SUPPORT
SOLUTION



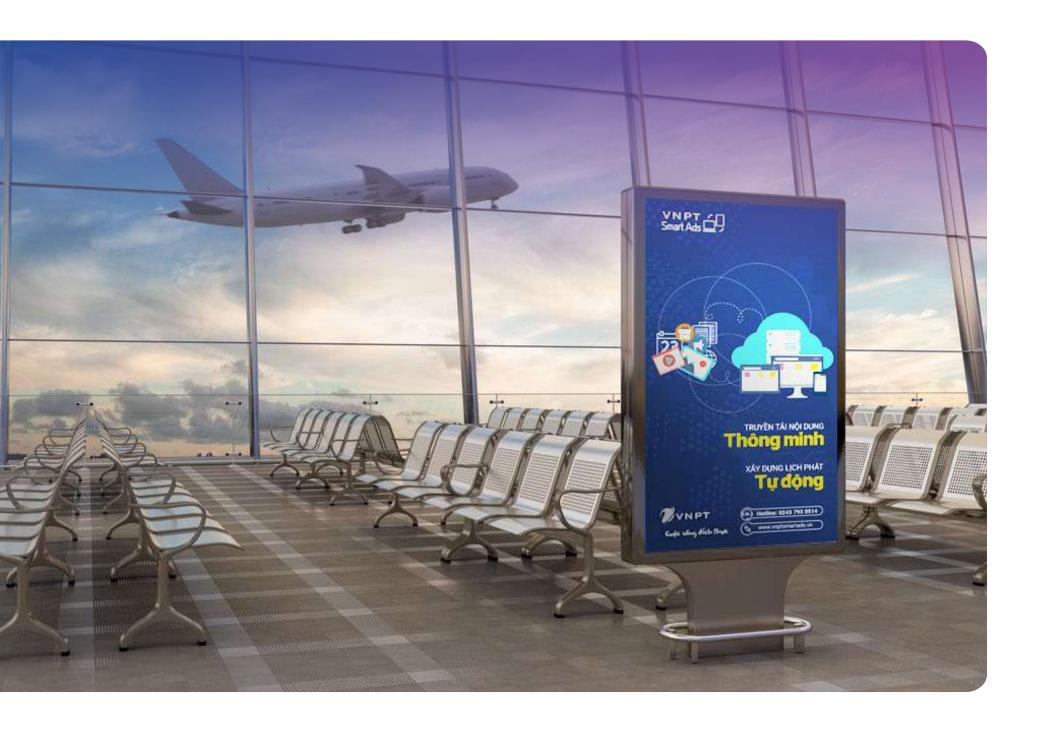




2.8.I SMART ADS

VNPT SmartAds provides users with solution in order to manage and control LCD network (Advertisement, information provision, etc.) in remote and synchronous manner, control as per schedule by using an Android Box.

Allow users to easily administrate and change content in screens flexibly as per designated plans.





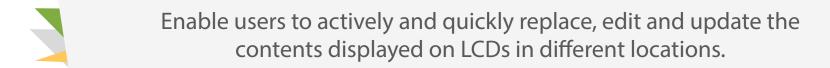








O BENEFITS OF THE SOLUTION



Establish content broadcast as per schedule in order to meet customer's demand.

Implement advertisement programs accurately as per the schedule provided by the administrator to get the highest communication effectiveness.

Strengthen enterprise brandname, create professional image and apply high technologies in production and business activities.













SYSTEM FUNCTION



COMPILE, UPLOAD CONTENT TO THE SYSTEM:

- Media content: support standards ò Video, Image content
- **Message content:** content in the footnote.



MANAGE PLAYLIST IN THE SYSTEM:

- Compile, initiate: Playlist information. Add content: Media to Playlist.
- Customize: Time, playing style, Media content standards.

MANAGE, COMPILE PLAY SCHEDULE

MANAGE THE PLAY SCHEDULE AS PER PLAYLIST IN CHANNELS AND PLAYERS

- Compile, install: Plan on playing content on channels.
- List configuration: Playlist played on Channels.

MONITOR DEVICES

- **Network Activity:** Check network status.
- **Devices Monitor:** Monitor the status of devices.
- Downloads Monitor: Monitor status of content download/upload.

DEVICES MANAGEMENT

- Manage lists: Players in the system.
- Manage and define: Channels in the system.
- Standard configuration: Image, resolution of LCD.

ACCOUNT ADMINISTRATION

- Manage the list of users: Initiate and decentralize users.
- Manage right and Decentralization: On system functions.
- **Group management:** Work in the system.





2.8.2



ADVERTISEMENT
SALE SUPPORT
SOLUTION





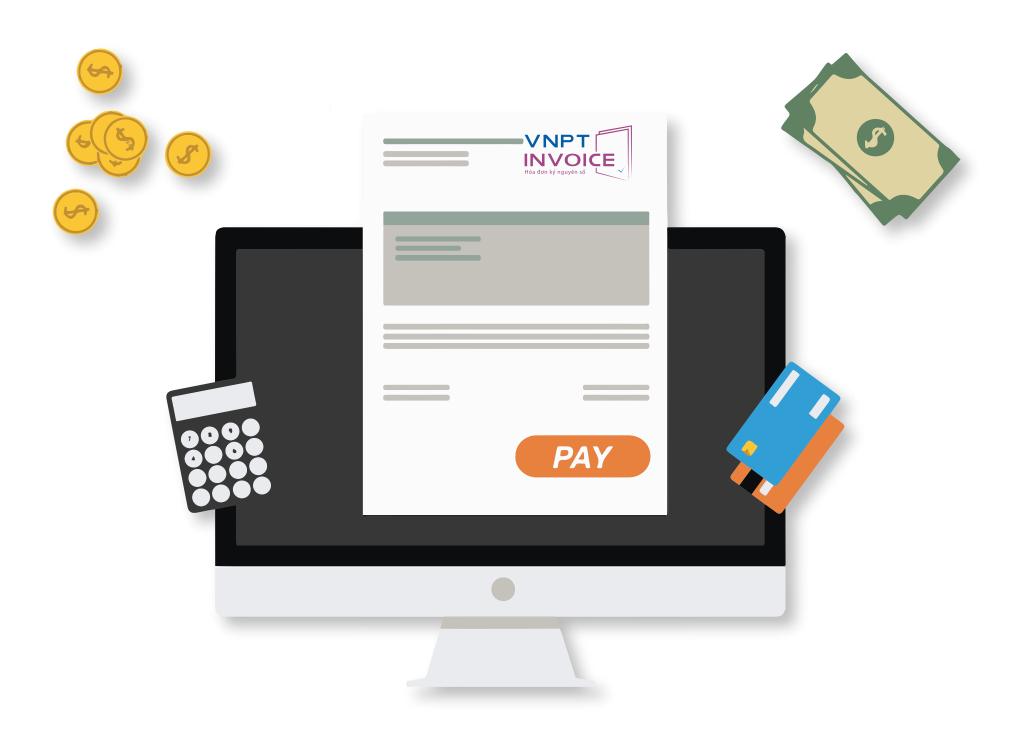


1

E-INVOICE are digitalized solutions of paper bills that have been fully recognized by the Ministry of Finance and the General Department of Taxation to legally replace paper invoices. There are now all the circulars and decrees guiding and detailing the implementation of this service.

O SYSTEM FUNCTION

- The unit is autonomous, self-responsible for information of issued invoice and limit risks, ...
- Shortening payment time because the making, sending / receiving of invoices is made via electronic means.
- Promoting the modernization of unit management work.













O BENEFITS OF THE SOLUTION



It helps enterprises save costs because they do not need to perform printing, saving, delivery, management by manual methods.



It helps units easily manage, search, provide invoice information.



Advantages in extracting reports and statistics.



Access to the system at any time, from anywhere provided that Internet connection is available.



There are conditions to apply more modern sales and payment solutions to improve the chain of tools to provide goods and services to customers.





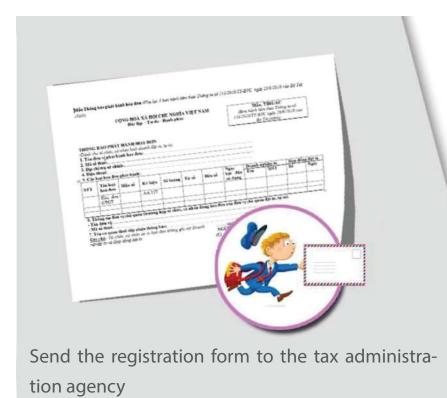


ADVERTISEMENT/SALE SUPPORT SOLUTION





PAPER INVOICE



E-INVOICE



Send directly on the electronic invoice release system

PAPER INVOICE



Order to print bills at the company printing invoices

E-INVOICE

Release directly on the software system, control the number of issues, how much you eus, how much you pay







ADVERTISEMENT/SALE SUPPORT SOLUTION





PAPER INVOICE

E-INVOICE





Directly send to the Customer by express mail, the staff must give a lot of invoices to the envelop and express delivery will take 1-3 days then customer can receive a paper bill to make payment procedures.

Send via email so that the Customers can immediately receive or put on the management system for Customers to see the invoice immediately and pay immediately, to shorten the payment time.

PAPER INVOICE

E-INVOICE



Easily search, statistics, especially tax declaration. Just click and you can find invoice information at any time. Financial statistics on demand are easy.









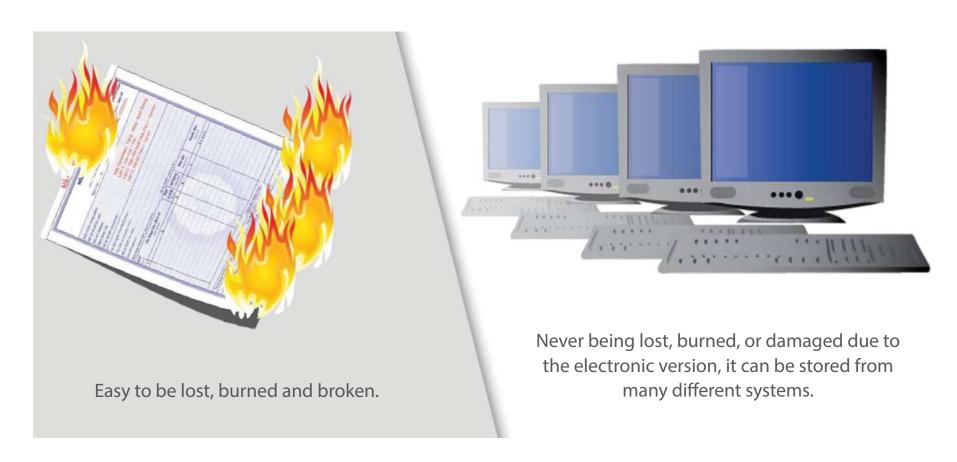
ADVERTISEMENT/SALE SUPPORT SOLUTION





PAPER INVOICE

E-INVOICE



PAPER INVOICE

E-INVOICE























O CONCEPT

VNPT CHECK is a product using electronic stamp code and QRCode electronic stamp printed and affixed to each service product (each service product uses different codes and stamps).

The management, printing and affixing this stamp helps the Company to manage each specific SPD that they can provide, accordingly each SPD will be provided with sufficient information about the origin to make it easy for users scan with all applications scanning QR Code to capture full information.













SYSTEM FUNCTION



As a consumer, have you ever wasted your time to search for and buy goods, consumer products, food, medicine ... with a reputable brand, good quality but ultimately buy fake goods again? These poor-quality counterfeit goods not only waste money that you have struggled to earn but also directly affect your health and spirit. Do you want to contribute to preventing that?



Each consumer has the right to be protected from counterfeit goods, but how does the whole society exercise its rights under current conditions? Until now, there has not been a simple and reliable solution to help consumers do this.



Our VNPTCheck solution of goods origin authentication uses the most advanced technologies, providing consumers with the means to accurately and reliably inspect the origin of goods. The solution uses high security stamps, uniquely identifiable on each unit of goods and is easily verified by the popular means as smartphones. Using VNPTCheck when purchasing goods, customer itself is the person who is able to disable the identity stamp of each goods unit, preventing re-use of these stamps for counterfeiting purposes.



In addition to verifying the origin of goods, VNPTCheck also provides additional information that consumers need to know about such as information about shipments, products, and manufacturers. Consumers will be alerted when a package / shipment is at risk of counterfeiting or recommended whether the expiry date is out. Just download the VNPTCheck app to your smartphone and sign up an account on the system, you can easily check the origin of the goods you want to buy, and if you are a regular customer, you can access fastest to current promotion policies of manufacture.



The outstanding feature is that electronic stamps are designed to be adaptable to any unit of goods and can be widely applied to items from expensive items to essential goods like foods, daily vegetables and fruits, VNPTCheck will help consumers to buy goods at small markets or grocery stores, not necessarily go to supermarkets but still know the origin of goods, very convenient for consumers in everywhere regardless of city or countryside.



Using VNPTCheck solution is a simple but effective measure for consumers to protect themselves and their families and prevent acts of cheating, contributing to building a healthier production and consumption.





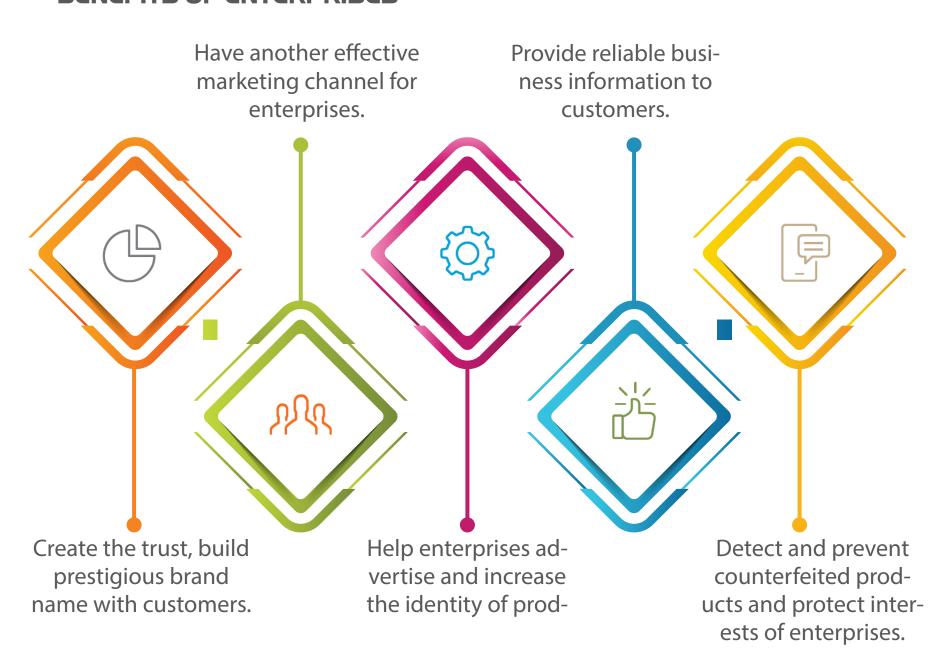






O BENEFITS OF THE SOLUTION

BENEFITS OF ENTERPRISES



BENEFITS OF CONSUMERS



Consumers have tools to easily look up information about manufacturers, products, usage, ...

Consumers can easily comment, evaluate, review on products of the enterprises.





Protect their rights / health and help prevent imitation and counterfeit goods.

















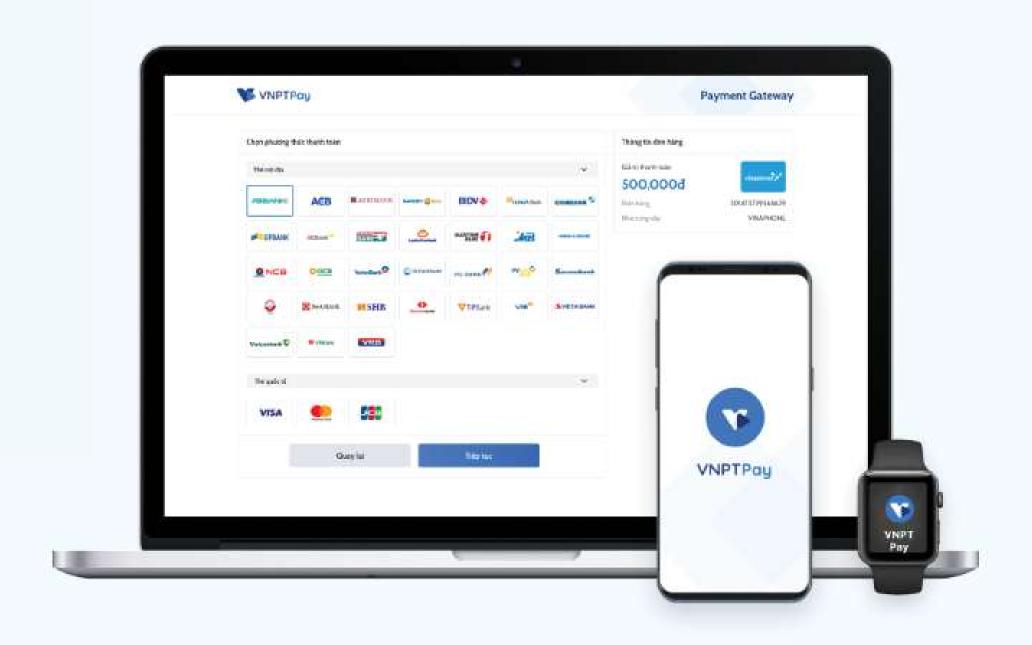


VNPT Pay is an electronic payment product of VNPT Group. VNPT Pay service is licensed by the Governor of the State Bank to operate in the payment intermediary field on July 6, 2017, allowing customers to use VNPT Pay service to make online payment transactions. at the same time, organizations and enterprises connected with VNPT Pay system can perform fully commercial transactions and pay easily, quickly and conveniently.

VNPT Pay has the following functions:

- · Payment gateways.
- Electronic wallet.
- Collection and payment on behalf

Currently **VNPT Pay** is provided to customers through Website, Application, Web portal channels in 63 provinces and cities nationwide.











OUTSTANDING FEATURES

- Smart recognition of image when paying.
- Diversified forms of payment: Wallet, domestic bank card, international card.
- Free-of-charge payment of all bills.
- Fingerprint authentication technology.
- Direct cash withdrawal at ATM.
- Automatic payment periodically.

INFORMATION SECURITY SAFETY

INTERNATIONAL SECURITY COMPLIANCE

- Dual security with OTP code and 6-digit password.
- Security feature 3-D Secure.
- Meeting GeoTrust security standard.

PERMITTED AND MANAGEMENT BY THE STATE BANK OF VIETNAM

SMART CONTROL OF ACCOUNT AND STATEMENT

Automatically update the balance immediately after each transaction, easily review history.













O BENEFITS OF THE SOLUTION



PAYMENT OF VNPT SERVICE CHARGE

Payment of Postpaid Vinaphone fee, landline phone, FiberVNN fiber optic Internet, MyTV television in an easy and fast manner.



TOP UP YOUR PHONE, BUY CARD CODE

Support multiple operators with preferential discounts.



PAYMENT OF THE BILLS

Support payment of bills from many suppliers such as VTVCab, K + ...



PAYMENT OF TRANSPORT SERVICES, TOURISM

Best book and pay the ticket, airline ticket, payment of automatic VETC fee collection account.



PAYMENT OF TUITION FEES

Easily pay on time tuition, meals ... of many schools across the country.



CHARITY

Contribute to prestigious charitable programs right on the phone.



TRANSFERS

Transfer money from Wallet to Wallet in Safe, fast manner, with 24/7 transaction.



WITHDRAWAL

Withdraw money to any linked ATM accounts. Unlimited number of times and amount to withdraw.



QR CODE PAYMENT

Scan QR codes to pay bills in a quick, convenient manner.



PUBLIC ADMINISTRATION

Online payment of public services, administrative procedures, in a simple and economical manner.

















VNPT-BHXH is an electronic transaction solution between organizations, enterprises, administrative and non-business units, schools and social insurance agencies nationwide.





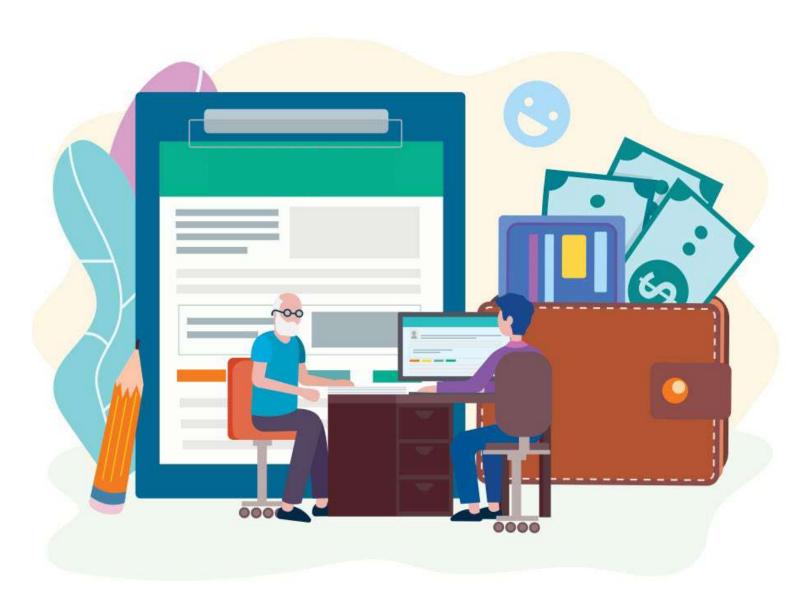






O BENEFITS OF THE SOLUTION

- Help customers to make declarations, social insurance documents according to regulations of Social Insurance industry.
- Save costs, reduce paperworks, reduce 70% of the time customers make procedures and deal with Social Insurance agencies.
- The software is compact, easy to use, limiting congestion in the process of filing documents.
- Business tax declaration documents when submitted via VNPT-BHXH service will be guaranteed to be smoothly received, enterprises do not have to print declarations, do not need to go to social insurance agencies, declarations are submitted directly online and receive results immediately.
- In addition, with the VNPT-BHXH service, the enterprise will be supported by professional and attentive service in the process of declaration and filing.
- Reduce costs and paperworks in business activities of the business community.
- Support social insurance agencies to save costs, human resources, improve efficiency in management, and handle social insurance documents.
- 24/7 support.













OBJECT TO USE



- Organizations and enterprises that employ labor in the territory of Vietnam.
- Commune / ward People's Committees implement health insurance procedures for children under 6 years old and voluntary health insurance for people.
- Schools implement health insurance for students.











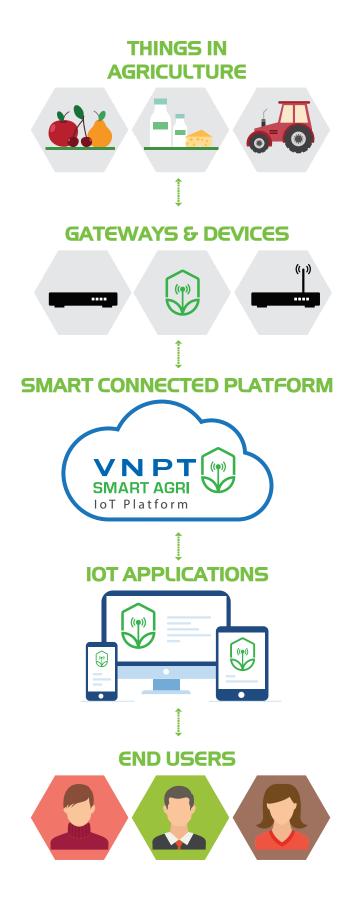
1 •

VNPT Smart Agri Solution is developed by VNPT based on IoT Platform - Smart Connected Platform (SCP).

Smart Agriculture solution is designed to be deployed on a variety of area units, with high customization and unlimited replication.

On each unit of deployment area, the installation equipment can be flexibly customized to meet the needs of monitoring and controlling equipment to meet the growing needs of each crop.

The smart agricultural system works based on the general principle of the Smart Connected Platform developed by VNPT, connecting devices through IoT gateway and connecting to Cloud via the Internet.









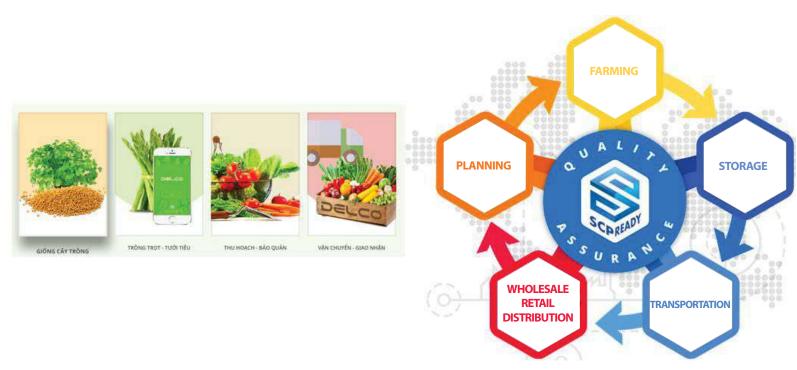




• UTILITIES SOLUTIONS

Hệ thống ứng dụng phần mềm và phần cứng được thiết kế để đảm bảo thành một quy trình hoàn thiện, giám sát toàn bộ quá trình từ sản xuất đến thu hoạch, chế biến và vận chuyển theo chuẩn thiết kế định hướng trang trại ứng dụng công nghệ cao.

OPERATION STANDARDIZATION



QUALITY ASSURANCE









O HARDWARE SYSTEM

CONTROL CABINET SYSTEM - DYNAMIC CABINET

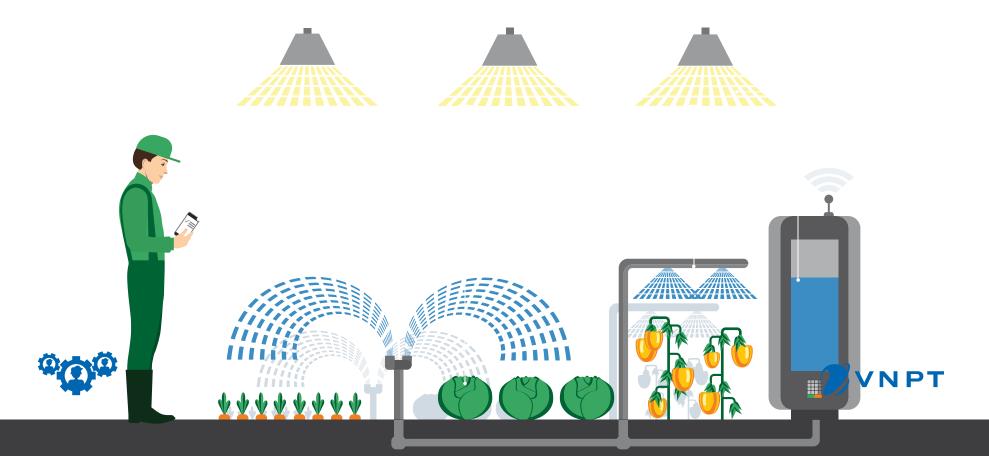
- System of control cabinets dynamic cabinets including IoT Gateway equipment, IoT relaybox and dynamic systems suitable for large capacity loads.
- IoT gateway IoT Relay box: receives signals from the Sensor sent to the system and receives control commands from the system to control the device in automatic mode.
 In addition, the system always has manual mode available so that users can turn on / off the device manually in case of an emergency.
- Sensor box: Read data from all sensors and transmit data from sensors to Gateway.

SENSOR SYSTEM

- Dynamic system: Receiving orders from IoT Gateway / Controller to close / cut off large capacity devices such as pumps, ventilation fans, winding motors, lamps ...
- Sensor includes types:
 - Sensor for measuring temperature air humidity.
 - Sensor for measuring temperature soil moisture.
 - Sensor for measuring water temperature.
 - Measuring sensor EC-pH solution for irrigation water.
 - Sensor for measuring water levels in tanks.
 - Sensor for measuring light intensity.

SENSOR SYSTEM

• Electromagnetic valve system is integrated with pump and nutrient tank system, along with automatic control software system to ensure that nutrients are mixed in accordance with the given rate and supervised precise EC-pH and temperature param eters before being pumped to plants.







SOFTWARE SYSTEM

AUTOMATIC CONTROL SOFTWARE SYSTEM

 VNPT Smart Agri has designed a software system that can automatically control the whole process (not only automatically in single operations), with good conditions, farming owners or farmers need only set once only, the program will run automatically for the whole crop.

SOFTWARE ON IOT GATEWAY

• Comprehensive control software on IoT Gateway: Receive and decode sensor signals from sensor boxes, control output signals on the dynamic circuit (solenoid valve, pump, lighting ...). IoT gateway software integrated Fog Computing solution allows the system to operate in autonomous mode when losing Internet connection to Cloud, in addition to allowing operators to correct the schedule of irrigation, pumping, nutrition mixing conditions, nutrient pump flexibly. Software on the gateway allows the system to operate in both offline and online modes.

SYSTEM SOFTWARE

• VNPT Smart Agri solution deployed with software system is capable of decentralizing access to different user objects. Each user from the farming owner, the operator or the laborer, depending on the nature of the job shall be granted the rights to see the monitoring information, control configuration, reporting statistics ... in different manner.

APPLICATION SOFTWARE SYSTEM INCLUDES

Mobile application (mobile, tablet): designed with a simple intuitive interface to help farmers easily monitor the overall state of the farm.

Application for managers: designed features for statistics, charts, reporting and setting up farming processes.







O HIGHLIGHTS TECHNOLOGY

EDGE COMPUTING TECHNOLOGY (EDGE / FOG COMPUTING)

• In the IoT network, cloud computing technology is not enough, edge computing tech nology is designed and applied for the purpose of processing data, executing deci sions at the edge of the network, at the important nodes in IoT network such as IoT connection gate, on-site IoT device, with the goal of reducing the load for centralized cloud system, minimizing the risk when centralized cloud connection is unstable and enhanced with the ability to prevent information security threats, we have developed IoT Agent to handle it.

MESSAGE BROKER TECHNOLOGY

 Cloud computing and edge computing technology can not only stop at the Client-Server architecture with the Request-Response model but need to deploy the Publish-Subscribe model with the ability to broadcast the messages most immediately, highest performance to every element in the IoT network. Our Message Broker serving dozens to hundreds to thousands of messages per second will be one of the core technologies to handle even the most complex IoT network.

REFERENCE PARAMETERS OF DEVICE

• Equipment used in the system has been selected to meet the farm's needs. The equipment meets the demand for continuous use 24/7, for a long time.

SENSOR FOR WATER

EC sensor: measuring range of 0.1 - 10 mS / cm.

Sensor for measuring water temperature: -10 - 85oC (error of 0.5 oC).

PH sensor: 0 - 14 (error of 0.1).

Ultrasonic sensor for measuring water level (distance from sensor head to water

surface): 20cm –2m2 (error of 1%).

• SENSOR FOR LAND:

Temperature sensor: - 30 - 70oC; (error of 0.5oC).

Humidity sensor: 0 - 100% (error of 3%).

• SENSOR FOR AIR:

Temperature sensor: -40 - 125oC (error of 0.4).

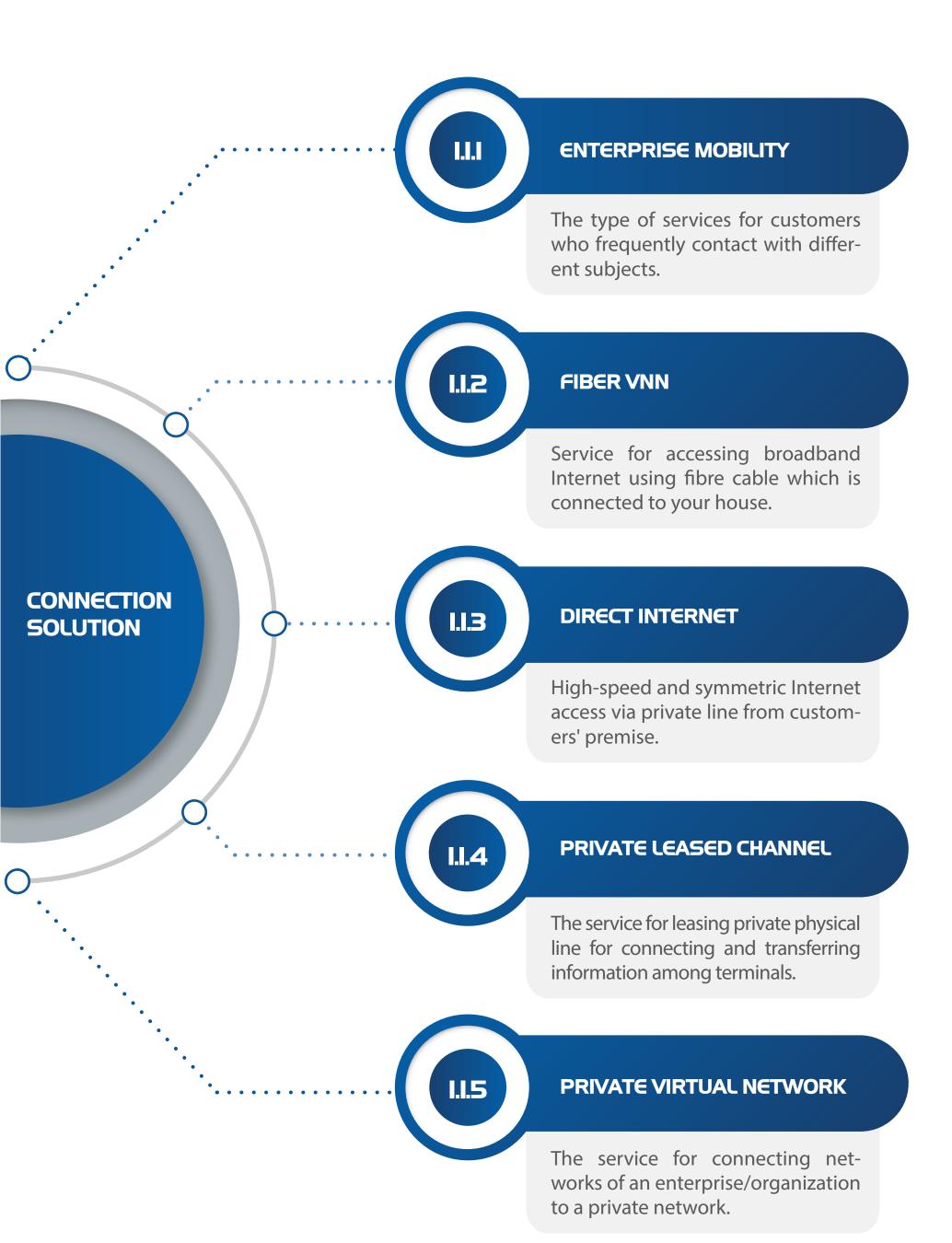
Humidity sensor: : 0 - 100% (error of 2%).

Light sensor: 0 - 65000 lux.

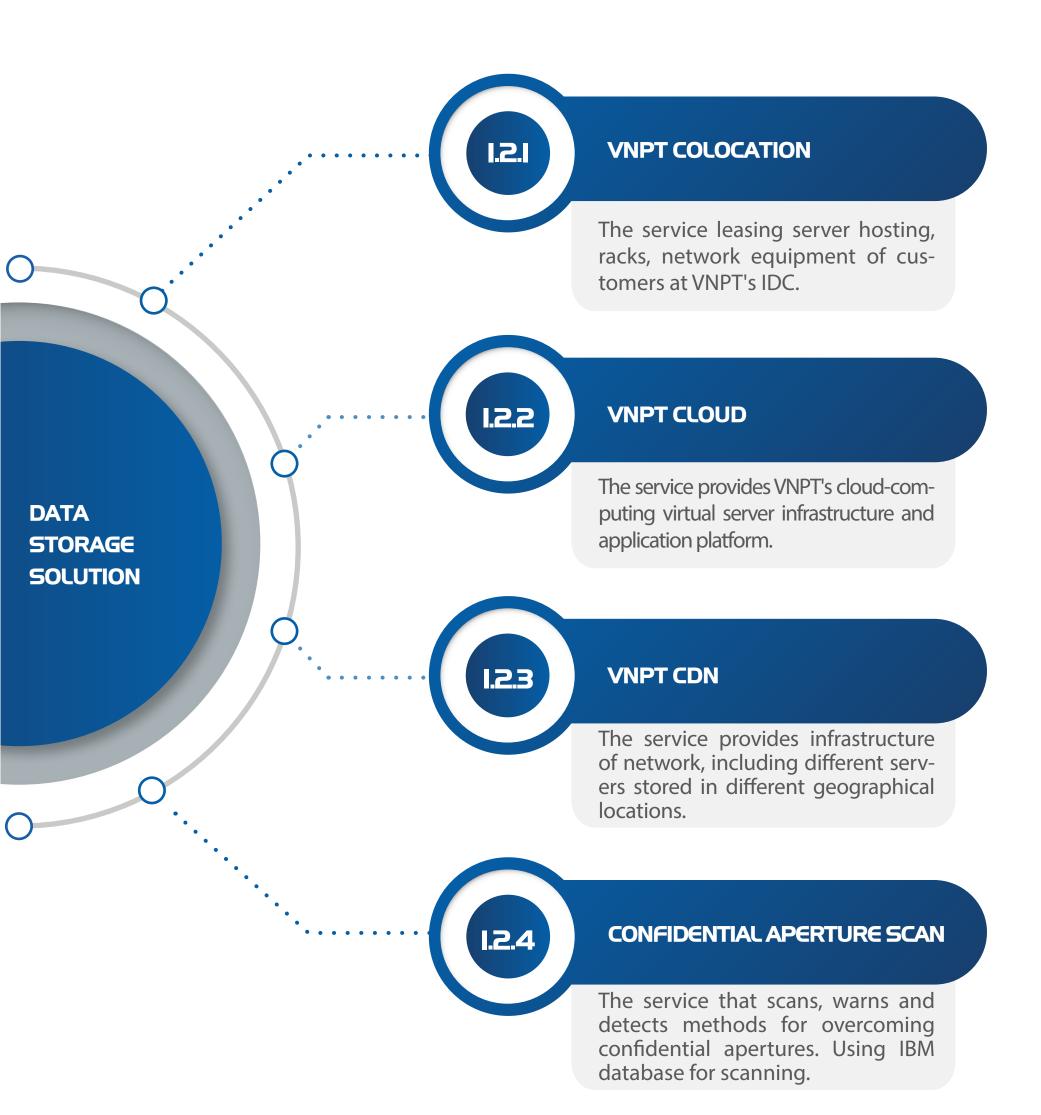








PLATFORM SOLUTION









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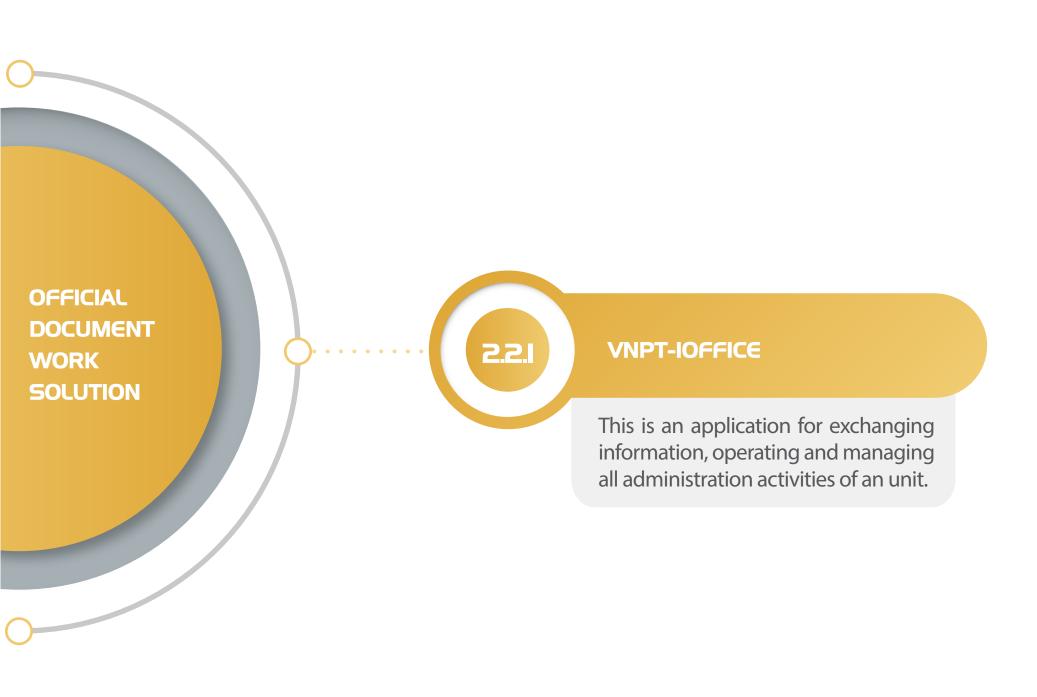
CONFERENCE TELEVISION Maximally meet the demand on profession exploitation relating to HR management. **ONLINE** VNPT - €CABINET **OPERATION SOLUTION** is a paperless meeting software built and developed by VNPT. **EMAIL** A solution for online vehicle track-

ing, which is provided by VNPT.



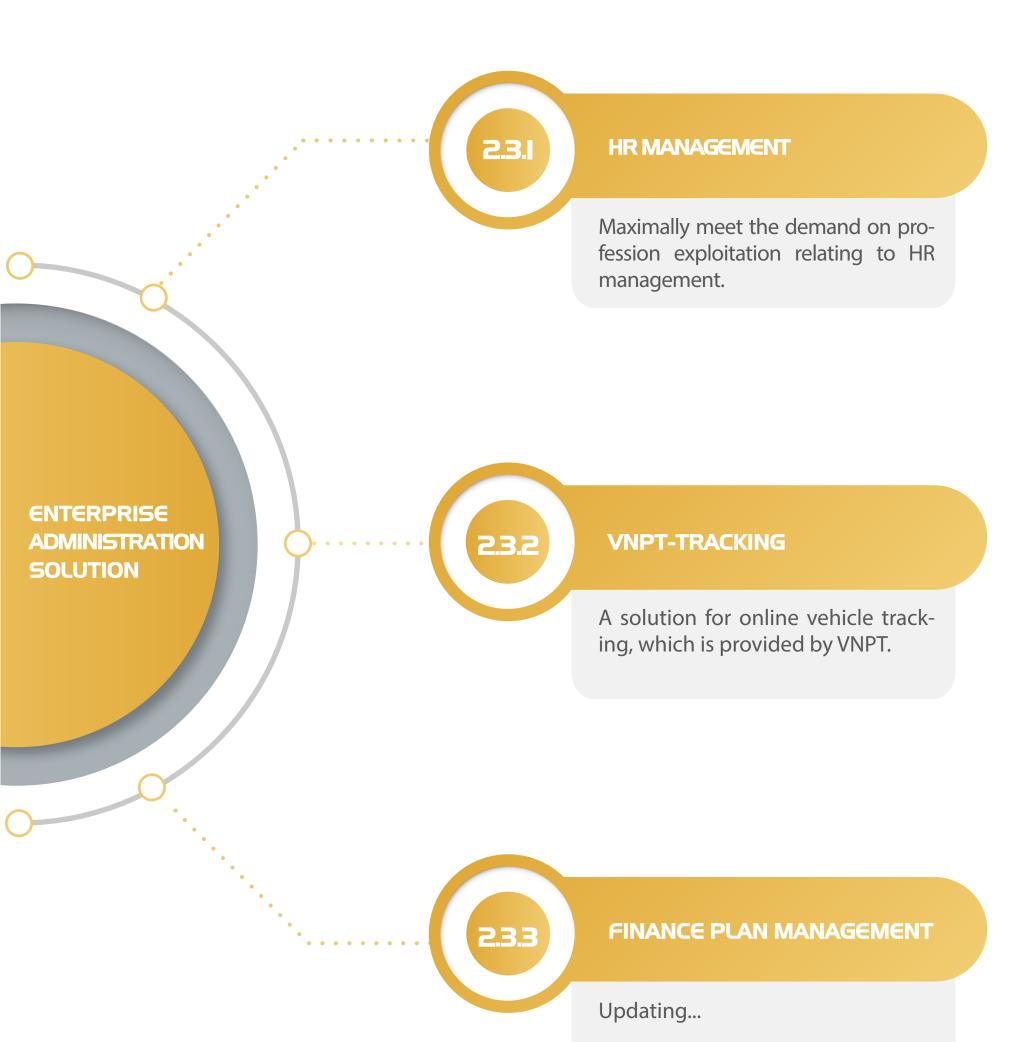








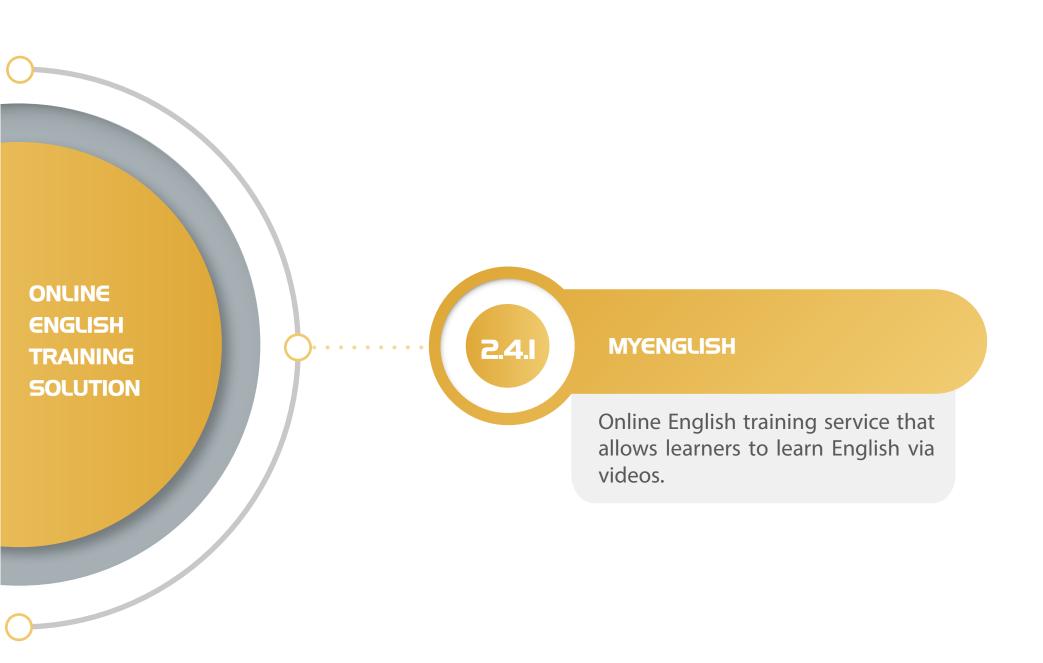








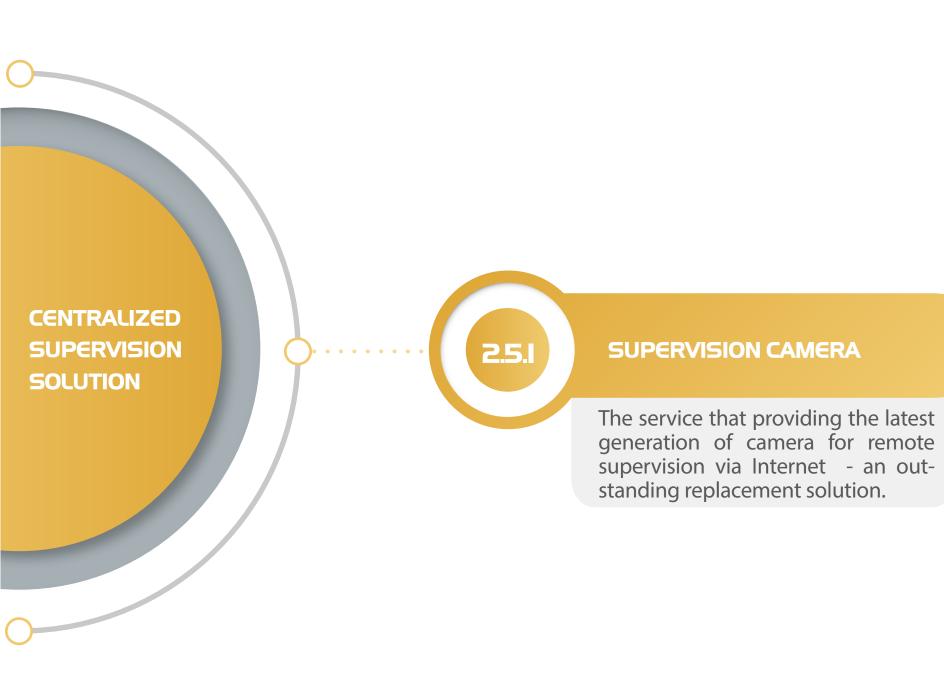
















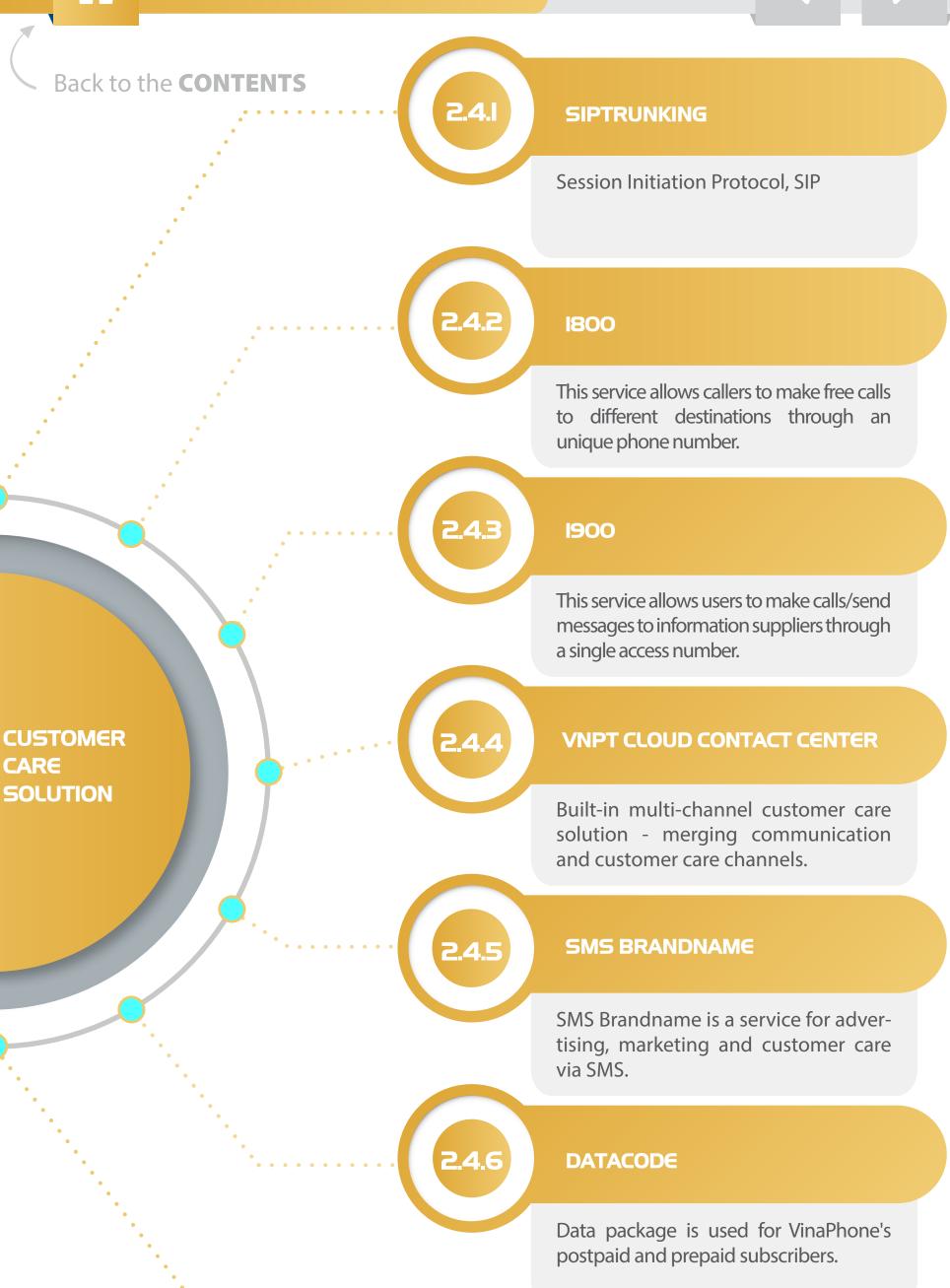












2.4.7 VPOINT

Joint point accumulation card is a card used jointly for all stores/enterprises in the card community.





The payment system including different unique functions and utility services that satisfy all payment de-

mands.



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SMART ADS The service for transferring content from control center to a system of display screens in the same network. **E-INVOICE** The solution that helps units issue, distribute and process professions and **ADVERTISEMENT** store e-invoice. SALE SUPPORT **SOLUTION VNPT-CHECK** Manage, print and stamp to help Enterprise manage every product and service. **VNPT PAY**







