Hi, I thank PMI for inviting me to present here at the PMI Global Congress in Vancouver in Canada at the 22nd of October.

The topic of my presentation
is about "Managing an ITIL SaaS Implementation IT program".

I would like to tell you the short story how I came to the opportunity to manage a program:

In year 2010 I managed this Program for a large IT Software as a Service provider in Germany.

During that time I've managed 10 projects in time, scope and budget until January this year.

The reason for delivering all time in "green" state was that I've built a set of feedback loops to manage each project and the whole program.

In this presentation we will look at these feedback loops.

Key facts of the ITIL SaaS Implementation Program

Software Product	Key Technologies	Delivery approach
•CA Service Desk Manager 12.5 •Incident and Problem Management •Business Intelligence Reporting	•Multi Tenancy to support a service provider structure •Enterprise scalable architecture •CMDB Configuration Item visualization	• Program •CA Services •Deep Domain Experience •Time and Material •Incremental deployment

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The Standard for Program Management defines a Program as a group of related projects managed in a coordinated way to obtain benefits not available when managing them individually. All projects are related to each other by a common goal.

The common goal here is to build a multi tenant Corporate Shared Servicedesk environment.
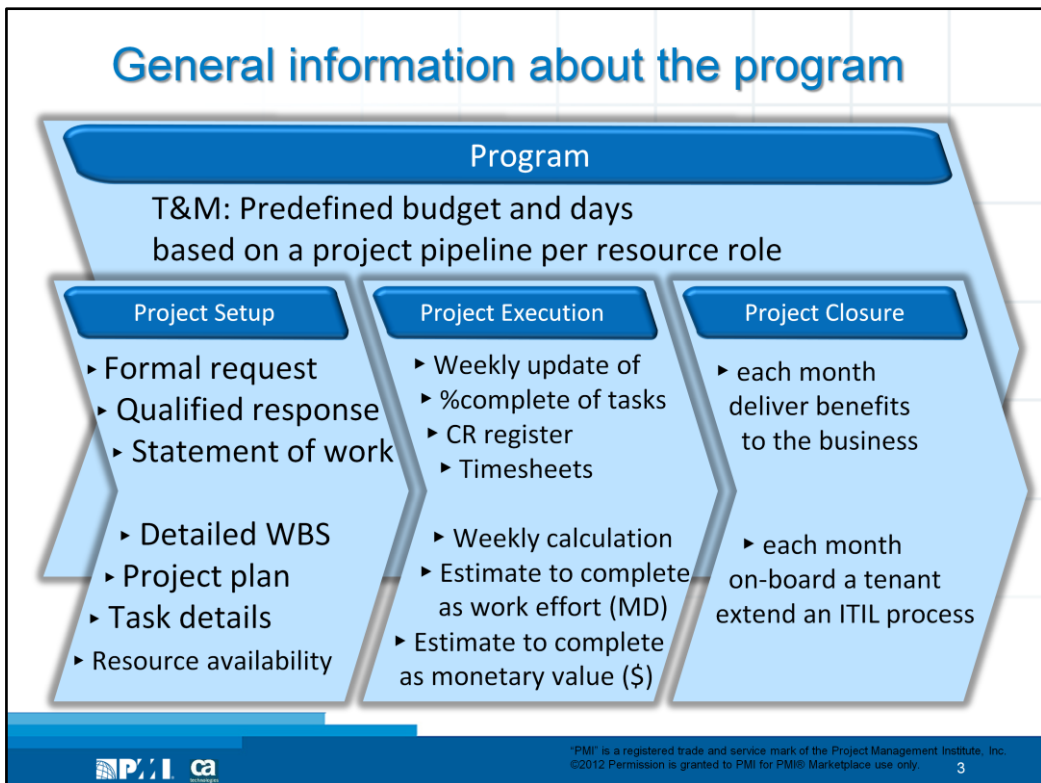
The CA software product is the CA Service Desk Manager r12.5 automating Incident and Problem Management with Business Objects as a platform for reporting.

Key technologies used are Multi Tenancy to support a service provider structure, building an enterprise scalable structure consisting of a primary SDM server and several secondary SDM servers. Also the CMDB is used to visualize configuration items.

The delivery approach is with CA Services which has a big domain experience. We are using our Architects and Consultants from the DACH-area. If needed we also use additional resources from UK and Benelux. For the implementation of our interfaces we have used Global Delivery colleagues from India.

One challenge was that they needed laptops and secure tokens from the customer to be able to access the DEV environment. But we managed to send these devices to India.

The project type is Time and Material. Delivery is done incrementally which means that there is no final work product at the end of the program but instead each project delivers a result that finally is used by the business when it goes into production.

General information about the program

Program

T&M: Predefined budget and days based on a project pipeline per resource role

Project Setup	Project Execution	Project Closure
‣ Formal request ‣ Qualified response ‣ Statement of work	‣ Weekly update of ‣ %complete of tasks ‣ CR register ‣ Timesheets	‣ each month deliver benefits to the business
‣ Detailed WBS ‣ Project plan ‣ Task details ‣ Resource availability	‣ Weekly calculation ‣ Estimate to complete as work effort (MD) ‣ Estimate to complete as monetary value ($)	‣ each month on-board a tenant extend an ITIL process

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The <u>program</u> Statement of Work (SOW) is of type time and material T&M with a predefined contract duration and predefined efforts per role for Architect, Sr. Consultant, Global Delivery Consultant and Project Manager.

These numbers are based on <u>a pre-agreed project pipeline</u> which was defined before the signature of the contract. We will see this later in the presentation.

The program SOW also <u>defines the rules for initiating a project</u> within the program. For pre-sales or pre-project efforts there is an agreement how these efforts can be booked to the program.

For <u>project setup</u> a formal process is used to capture the requirements and create an offer. For this I have an extra slide in my slide deck which I'll show in a short moment.

For project setup it is important define all tasks and estimate and review these tasks with an Architect and the customer. When this is finished a Microsoft project plan will be defined. This needs to be done carefully because in this program claiming additional efforts after the project has started are not allowed. However scope changes are handled with Change Requests.

During <u>project execution</u> the status is updated on weekly status reviews: On the one side the % complete figure given by the consultant on the other side the actual work effort stated on weekly timesheets is used for estimate to complete calculations.

During <u>project closure</u> the project is transitioned via a Go-Live into the PROD environment. At this time the project will start delivering benefits to the business.

To show progress a tenant should be on-boarded each month to this shared Servicedesk system.

Situation, what are the facts, what is causing the problem?

A. Multiyear engagement

B. Huge number of items to deliver

C. Big human resources team

D. Many stakeholders and influencers

E. Overloaded program and project managers

F. Project management techniques are insufficient for program management

G. Program can be seen as dynamic system

4

Now back to our initial question why feedback loops are that important when managing a program consisting of many projects:

A. Compared to a single project the program has a much longer duration of several years.

B. Compared to a single project the program has a huge number of deliverables.

C. Because the scope is broad the program has a larger human resources team to manage.

D. There are many stakeholders as each project within the program has different stakeholders in the organization.

E. This might lead to an underestimation of the PM effort to manage the program and it's projects. Both I as program manager and the program manager who took over the program in January needed to delegate as much as possible to avoid an over-utilized PM workload.

F: Project management techniques are insufficient

G: This IT program can be seen as a dynamic system where each project is providing feedback to the program and the business of the customer. Any delay in feedback might lead to oscillations because of intervening corrections. In the end any delay in negative feedback might destabilize the whole program which finally will not achieve the desired benefits.

Negative Consequences and what happens if there is no corrective action

A. Budget overruns in projects

B. Project schedules are not met

C. Schedule for projects within program is not met

D. Program budget is consumed without getting the program benefits

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If there are no feedback loops in place which are re-evaluated regularly i.e. weekly one can expect negative consequences:

Possible negative consequences for projects:

A. You might see effort overruns and budget overruns as you as PM did not control efforts during implementation.

B. You might see that project schedules are not met because you as PM do get a delayed information about the actual completion state of project tasks.

All these negative consequences propagate back to the program level:

C. Because of significant deviations in projects the overall program schedule is not met.

D. And the program budget is consumed without giving the business the program benefits.

With this ITIL SaaS program the customer is in a situation with high competition in the market. Therefore it is important that the program is yielding cost savings. The customer formulated this as one of the key benefits that the program has to achieve. This is the reason why a shared system for all customers is used and why we are running a program and not single projects.

The average cost per ticket should decrease as the number of tenants and end-customers are increased (economies of scale).
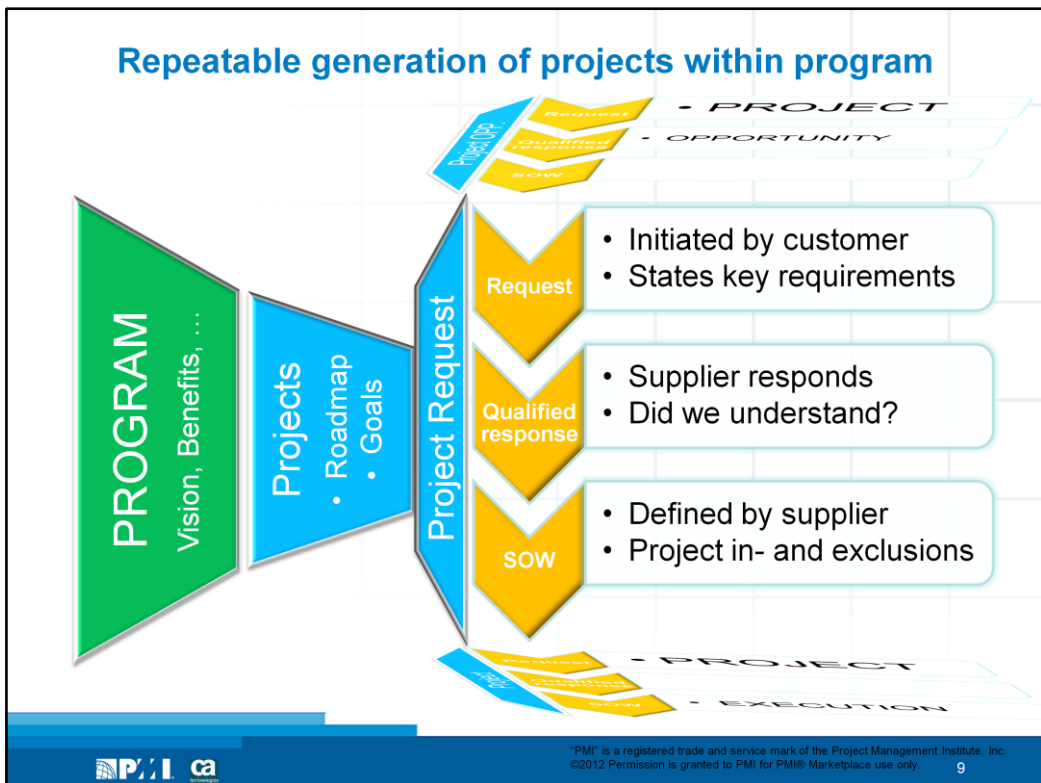
Objective: Do you agree that the most important thing is to implement feedback-loops to manage the dynamic complexity of IT programs?

Proposal: I propose the following: Pre-define feedback loops within the program and its projects

This can be met by the following steps:

A. Define the process how projects can be efficiently and repeatable be generated out of the program

B. Define the process to manage shared resources

C. Define process and tools to manage each project within the program

D. Define long term Program performance and progress metrics

E. Use tools and templates which support management with aggregated of data

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The <u>next slides will show how </u>this was accomplished in the program.

Repeatable generation of projects within program

PROGRAM — Vision, Benefits, …

Projects — • Roadmap • Goals

Project Request

- PROJECT
- OPPORTUNITY

Request
- Initiated by customer
- States key requirements

Qualified response
- Supplier responds
- Did we understand?

SOW
- Defined by supplier
- Project in- and exclusions

- PROJECT
- EXECUTION

This slide shows how new projects within the program are requested.

The slide shows a kind of a wheel where on the top new opportunities are coming in which then become a project request. When the request is answered it becomes an active project within the program. You see this indicated on the bottom.

The request itself is started by the customer who states the requirements in a project briefing. CA as the supplier responds to that request with a qualified response. This step gives feedback to the customer if we actually understood the request and a guestimate about the effort. (+- 15%)

When the customer indicates that this is what they need CA will create the SOW, Work packages, effort estimation and project plan. (+-5%)

On the left side of the slide you see the program which gives guidance for requesting new projects. There the vision and list of benefits are defined as well for projects the roadmap and their goals are defined.

From an administration point of view it is important to minimize setup efforts as much as possible. I.e. the terms and conditions are listed in the program contract. Therefore there is no need to repeat these in each project SOW.

Thinking this way you probably see other topics which can be defined once and need not to be repeated in each project.

Because there are <u>multiple projects running in parallel</u> utilizing the <u>same shared environment</u> and the <u>same specialists</u> a Shared resources rolling plan was used to visualize program activities. This plan is an addition to project plans and is updated frequently to reflect all changes. The planning horizon of the rolling plan is 4 weeks.

This plan is <u>stored</u> on the shared projects workspace which is accessible over the Internet by all project members (Sharepoint).

Here on the <u>screen shot</u> you see a <u>tab</u> in Excel showing a specific <u>calendar week</u> Monday to Friday. Two weeks are stored per Tab and there are additional tabs showing all upcoming and past weeks of program execution.

On the left side you see the two <u>streams</u> project „TM1 Tenant1" and project „TM2 Tenant2". For each stream there is space to name <u>the CA Resource, the customer SME, the task to perform and the expected output</u>.

The top rows you see the usage of the DEV, TEST and PROD environments. You see that project TM2 is using the DEV and TEST environment and PROD is used for production.

The advantage of the rolling plan is that it <u>visualizes</u> what is going on during a week and who will work on which project and who will use which environment.
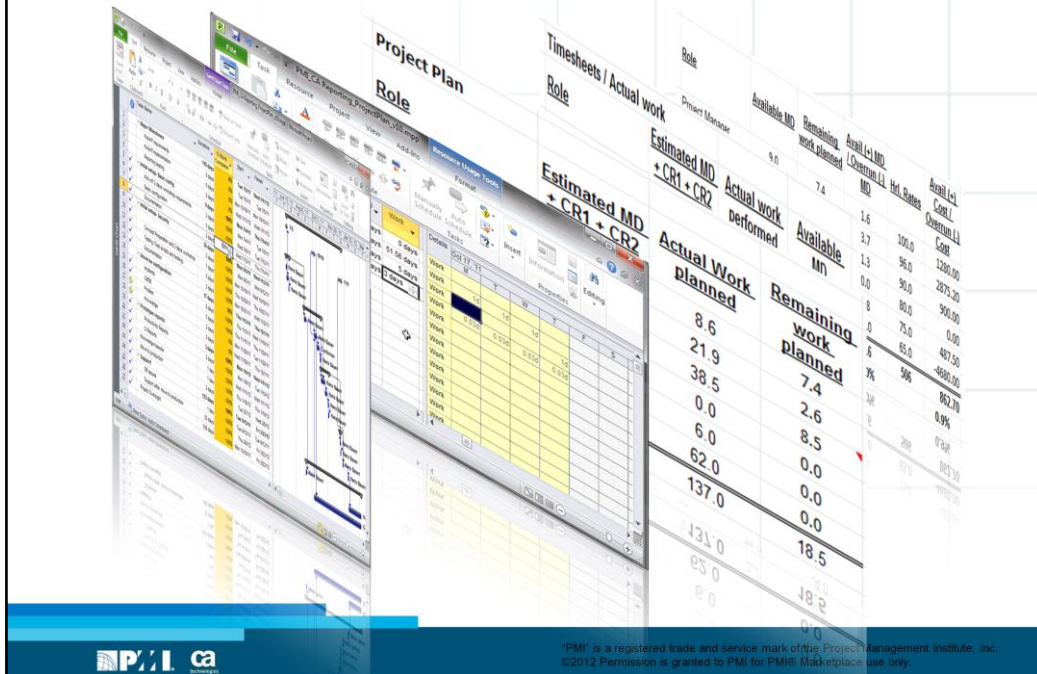
This set of screenshots on this slide is showing how I did calculate the estimate to complete figures for each project.

Prerequisites: In order to be able to do that it is important that a detailed WBS and project plan is available for the project. The implies that there was an estimation of the project done together with an architect. In our program it was agreed on a +- 5% accuracy for the estimations.

The first screenshot is showing a project plan where I've added the column percent complete. During the weekly project status call with the project team I'm updating this value according to the input from each assigned consultant.

The next screenshot shows the resource usage view. In this view Project is showing the actual work and remaining work according to the plan.

As next step I've used an Excel table to aggregate the actual efforts according to submitted Clarity timesheets.

And finally with this information the estimate to complete is calculated. Note that this procedure is repeated every week during the whole project duration. This technique ensures that any deviation from the plan is seen as early as possible.

With that corrective actions can be taken soon if needed.

This slide shows a feedback loop on program level.

It uses aggregated data from the Clarity Time Report. For the program we have used for each project and role a different task name.

This has the advantage that the report will show all relevant information to build a summary status per project and role and a total program level information.

As you can see achieved revenue is also calculated as financial indicator.

This information is then used as input for the next program level feedback loop.

Bird's eye view on program level

Draft Planning as of Sept 2011

Software	Project	Stream	08/11	09/11	10/11	11/11	12/11	01/12	02/12	03/12	04/12	05/12	06/12	Total Days
CA Service Desk Manager based	SaaS Env	SaaS Environment	49		12									61
	SaaS Env	Interfaces	14	2	3	20	18	25	27	24				132
	SaaS Env	Reporting				17	18	12						47
	Tenant1	Incident Management	64	49	68	65	47	19	28	27	4			370
	Tenant2	Incident Mangement	27	29	34	19	10	7	8	7				140
	Tenant2	Problem Management			15	12	4	4	8					44
	Tenant2	Change Management				12		16	15	27	31	30	28	160
	Tenant3	Request Management		6	12	20	7	8	11	7	12	11	7	100
	Tenant3	Change Management		19	29	30	20	16	27	30	25	16	16	230
	Tenant3	CMDB		7	15	26	11	11	11	19	34	12	11	157
		Planned Total days	153	112	188	221	134	120	135	140	107	69	62	**1441**
		Planned Accumulated days	153	265	453	674	808	927	1062	1203	1309	1378	1441	
		Planned avg. heads	7.6	5.6	9.4	11.0	6.7	6.0	6.7	7.0	5.3	3.4	3.1	

Actuals until March 31, 2012 + Estimates stated in SOWs

Software	Project	Stream	08/11	09/11	10/11	11/11	12/11	01/12	02/12	03/12	04/12	05/12	06/12	Total Days
		Actual avg. Heads	3.6	0.4	5.9	6.6	4.6	3.4	8.6	12.2	5.1	3.4	3.1	
		Actual Accumulated days	71	78	197	329	420	489	661	904	1007	1076	1138	
		Actual Total days	71	7	119	132	91	69	172	244	103	69	62	**1138**
CA Service Desk Manager based	SaaS Env	SaaS Environment		2	101	84	41	10	11					248
	SaaS Env	Interfaces			11	5	15	12	3	2				48
	SaaS Env	Reporting	47											47
	Tenant1	Incident Management	24		6	2	13							45
	Tenant2	Incident Mangement												
	Tenant2	Problem Management		5		34	22	35	51	45				192
	Tenant3	Request Management							13	24	31	30	28	126
	Tenant1	Problem Management							78	168	12	11	7	275
	Tenant3	Change Management				9		11	17	5	25	16	16	99
	Tenant3	CMDB									34	12	11	57

13

This view is showing <u>each month</u> of the program. For <u>each project the effort </u>in man-days is plotted.

On the top half of the screenshot you see the <u>draft planning </u>that was done when the program SOW was signed. You see the total planned effort which is written into the SOW, too. And you see the planned estimated effort per project per month. Each cell is automatically colored with the Excel conditional formatting. The higher a number in a cell the darker the background.

The bottom half of the view is showing the <u>actual numbers for past months </u>and the <u>revised estimation for future months</u>.

The important information is shown in the middle of the view:
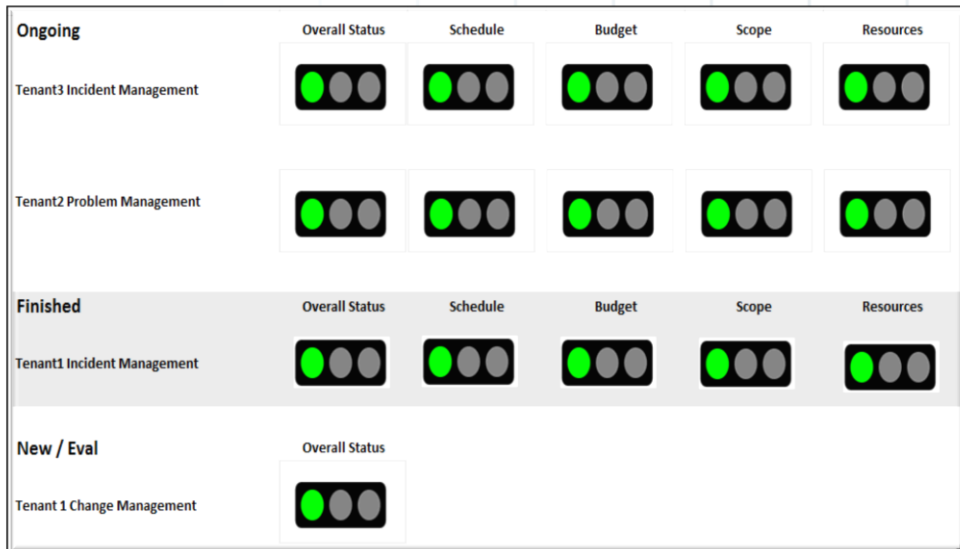
- Actual vs. planned man-days per month for the program
- Actual vs. planned accumulated man-days per month for the program
- Actual vs. planned average heads per month for the program

At a glance traffic light view
of Program benefits

Program					As of December 2011
Expected program benefits			**Status**		**Trend**
	Availability of resources	Prevent Incidents from happening and to minimize the Impact of Incidents that cannot be prevented.	🟢 ⚫ ⚫		🟢 ⚫ ⚫
	Roll Out capability	Integration of Service Desk with external systems "A" and "B".	🟢 ⚫ ⚫		🟢 ⚫ ⚫
	Reduce Costs	Base infrastructure for the on-boarding of multiple tenants on a single physical system.	🟢 ⚫ ⚫		🟢 ⚫ ⚫
	Aligned Planing	Planning aligned to intial program plan	🟢 ⚫ ⚫		🟢 ⚫ ⚫
	Faster and constant success	Regular progress with regard to requiremnets of the business.	🟢 ⚫ ⚫		⚫ 🟡 ⚫

This view is mainly used for program steering meetings to give an status overview of the whole program.

On one dimension all projects are listed even those with are in evaluation phase or projects which are finished.

The other dimension shows key attributes of the project: Schedule, Budget, Scope and Resources.

For the coloring we agreed with the customer about reporting categories which are shown on the next slide.

Reporting categories for traffic light status

Dimension	Project - Green	Project - Amber	Project - Red
Schedule	Next Milestone and overall plans on track.	Issues achieving next Milestone and/or overall timeline.	Next milestone and/or overall timeline will not be met.
Budget	Currently within budget and forecast to remain within budget.	Currently not in budget and/or overall budget will be exceeded by <5%.	Currently not in budget and/or overall budget will be exceeded by >5%.
Scope	Scope and objectives are agreed with all stakeholders and can be met.	Different understanding within stakeholder and/or objectives are in danger.	Scope/Objectives cannot be met currently.
Resources	Staffing is appropriate	Issues with staffing.	Cannot be executed with current staffing.

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16

It is important to agree with the customer upfront what are the boundaries for coloring each dimension.

Positive results when this proposal is implemented:

A. Projects run in scope and time

B. Executed sequence, size and duration of projects matches mainly planned program script

C. Business sees frequently successes in short period of time

Next steps

A. Sample templates are available from the author
http://rudorfer.homedns.org/

B. Open for volunteers to expand the toolset

18

Summary

A. The program pipleine is evaluated monthly

B. Program benefits are re-evaluated monthly

C. There is a simple process to start

D. Projects have a predefined scope and managed using the ETC.

E. Shared resources are managed with a rolling plan.

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